

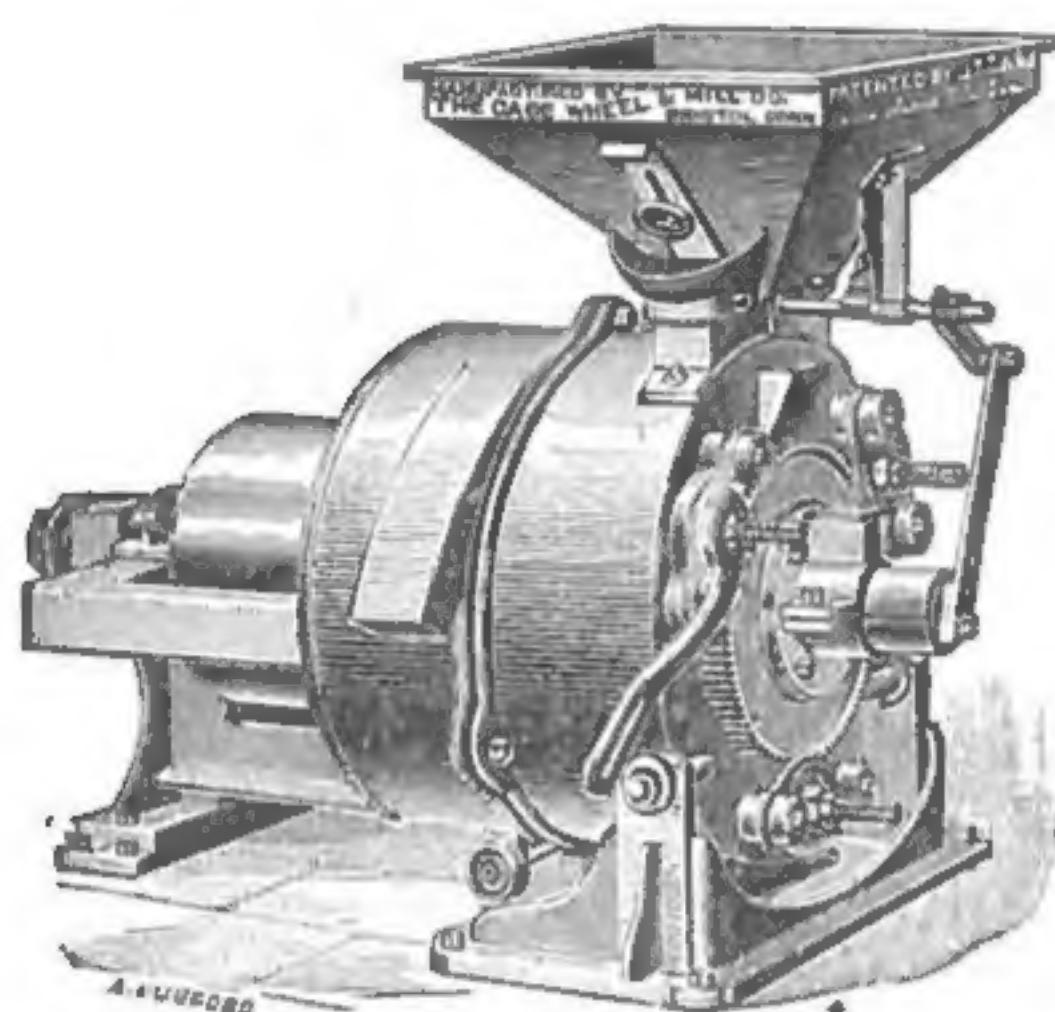
CHRONICLE OF THE GRAIN AND FLOUR TRADE

PUBLISHED EVERY MONDAY MORNING.

VOL. XXII. No. 11.

BUFFALO, N. Y., MAY 12, 1890.

\$1.50 PER YEAR.



VICTORY OVER ALL OTHERS. SINGLE & DOUBLE VERTICAL GRINDING MILLS.

(J. T. CASE'S PATENT.)

FACTS ARE MIGHTIER THAN ASSERTIONS. READ WHAT THEY SAY:

"Our 20-inch mill made by the Case Wheel & Mill Co. is in every respect satisfactory, easy to handle, and best results obtained of any mill in the country, with same quantity coal and power."—A. S. RUSSELL & CO., Meriden, Conn.

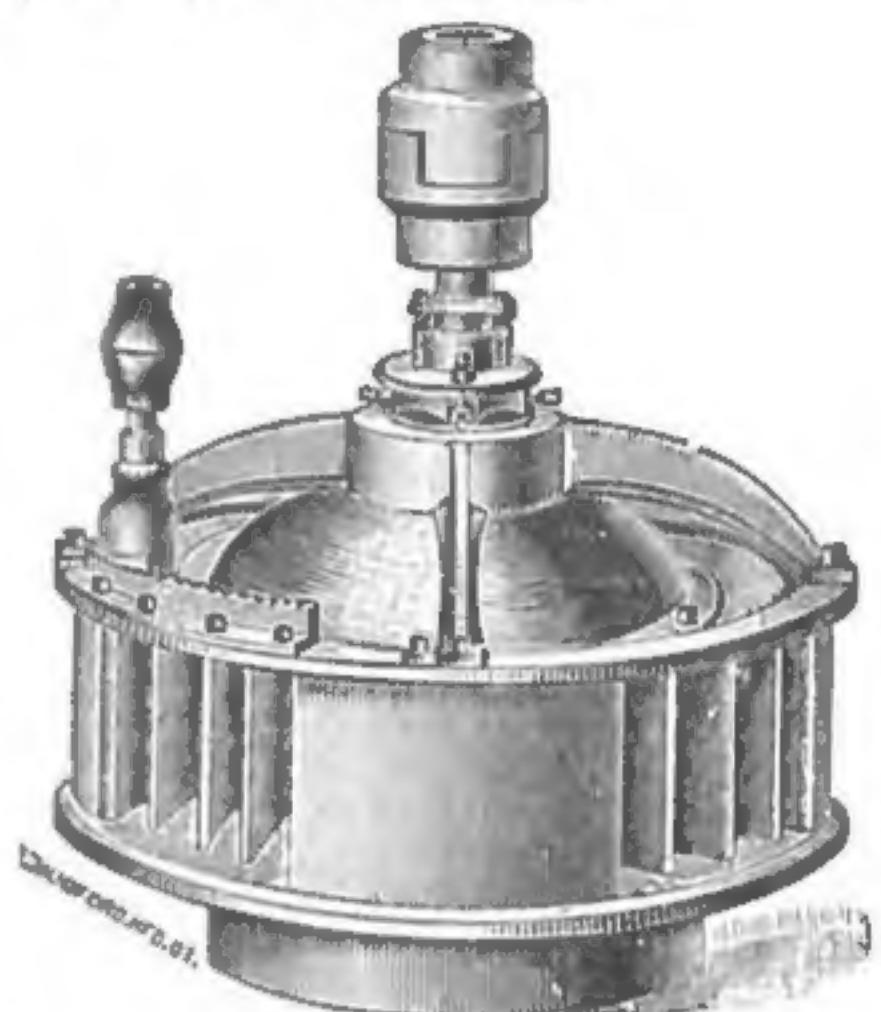
"Superior to any mill in use."—GEO. WESTON, Bristol, Conn.

"The best satisfaction in quantity and quality."—CHILD'S ELEVATOR, Manchester, Ct.

"We take pleasure in recommending it."—GARLAND, LINCOLN & CO., Worcester, Mass.

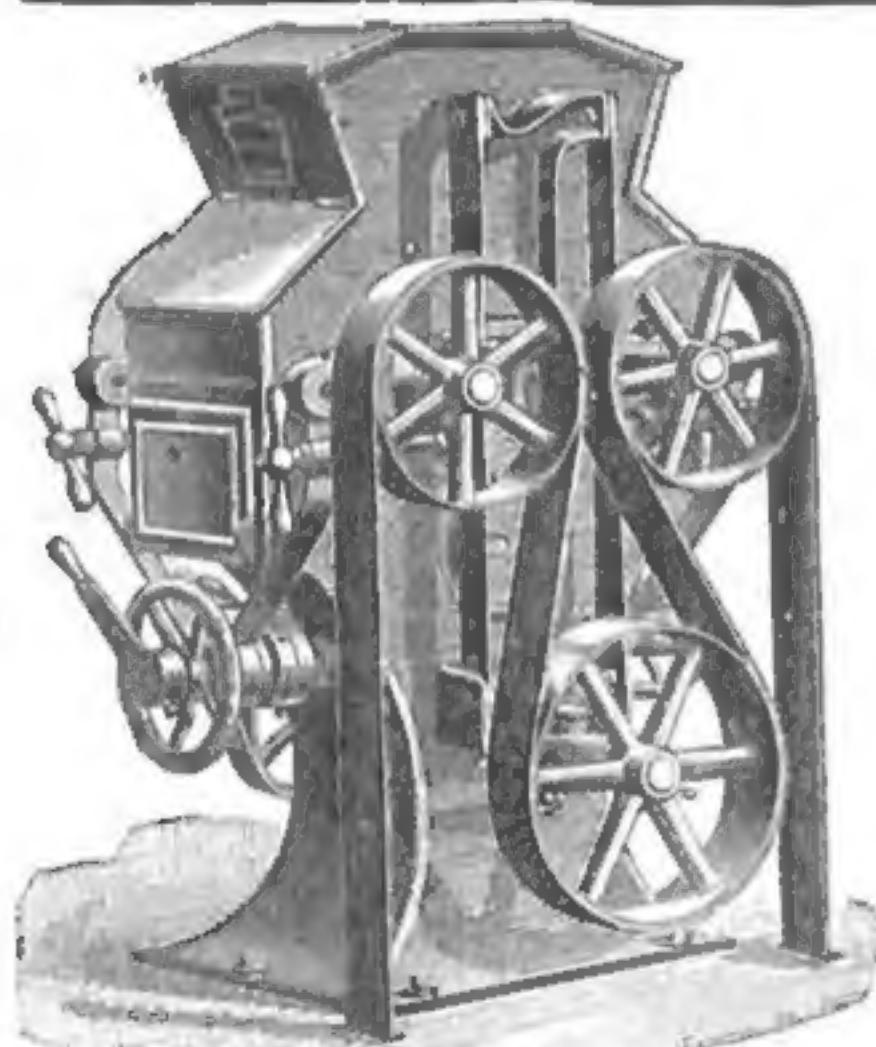
SEND FOR CATALOGUE—ILLUSTRATED AND DESCRIPTIVE.

The Improved National Turbine Water Wheel



The Best for Economy; The Best for Durability; The Best for Power. ONE THOUSAND FIVE HUNDRED NATIONAL WATER WHEELS IN USE Prove that our Assertions are Supported by the Leading Manufacturers in the Country. Send for illustrated catalogue and prices to the manufacturers.

The Case Wheel & Mill Co., Bristol, Conn.



HONEST WORK.

GOOD FLOUR.

THE J. B. ALLFREE CO., INDIANAPOLIS, IND.

PERFECT MACHINERY.

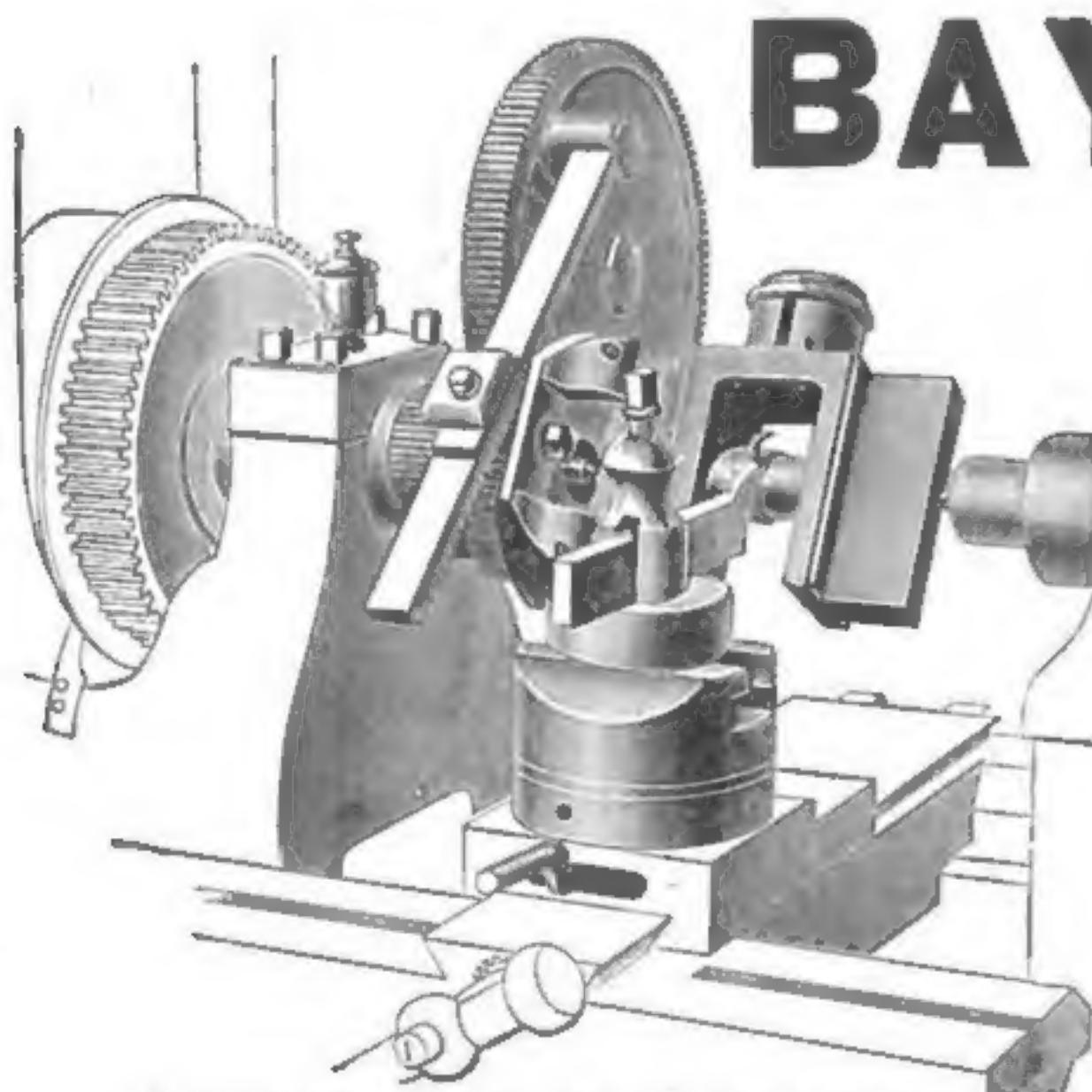
FRERTOWN, IND., April 7, 1890.

GENTLEMEN: We have had the mill you built for us in successful operation since November, 1889. We are glad to say that WE HAVE ONE OF THE BEST 60-BARREL MILLS IN THE STATE. Our flour will compete with any thing in the market; our percentage of low grade is very small and our clean up is as good as we ask. Your rolls, in our judgment, are superior to any thing on the market, being light running, easily adjusted and having other improvements which we fail to find on any other roller mill. Your "Success" Bolters, Centrifugal, Bran Duster, and in fact all the machinery gives perfect satisfaction. Every thing is smooth, cool and easy, making the least noise of any mill of same capacity we have ever been in when running. A farmer came in a few days ago and said that our mill did not make any more noise than an easy running sewing machine. We honestly believe that our line of machines has more points of excellence than any we have seen, which is evident from the fact that this is the second complete mill which you have built for us (or practically the firm), within four years, both of which are running, this latter being an improvement over the former one, and is what its name implies, a "Model Roller Mill." Wishing you the success you deserve, we are,

Yours truly, TOBROCK, ALDENHAGEN & CO.

CLOSE FINISH.

ADDRESS THE J. B. ALLFREE CO., 76 to 86 Shelby Street, INDIANAPOLIS, IND.



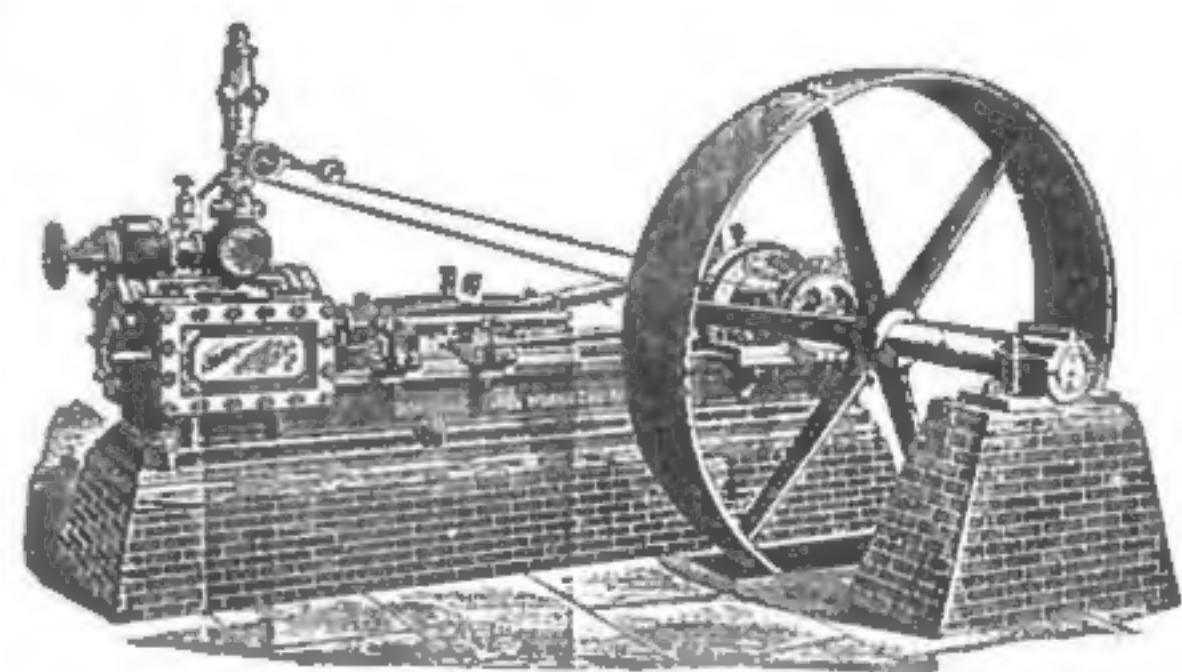
PATENT CROSS-HEAD MACHINE.

BAY STATE IRON WORKS

—MANUFACTURERS OF—

Engines, Boilers & Hoisting Machines

Also the Patent Cross-Head Machine and Acme Cube Pipe Tongs. We make either Center or Side Crank Engines, on same bed. Make engines from 5 to 250 Horse-Power. Have over 3,500 Engines and Boilers and over 1,000 Hoisting Machines in use, and all giving good satisfaction. Send for Catalogue and Prices.



HORIZONTAL ENGINE.

Noble & Hall, Box 462, Erie, Pa.

**OFFICE OF
CASE MANUFACTURING COMP'Y
COLUMBUS, OHIO.**

The Case Roller Mills. Over 14,000 Pairs in Use.

PLEASE READ OUR DESCRIPTION OF THEM, EVERY STATEMENT OF WHICH IS ABSOLUTELY TRUE.

PLEASE READ WHAT MILL OWNERS SAY ABOUT THEM.



The accompanying cut is a correct illustration of our latest improved Four Roller Mill. For fine work, great durability, simplicity, and general excellence, they stand "head and shoulders" above all others.

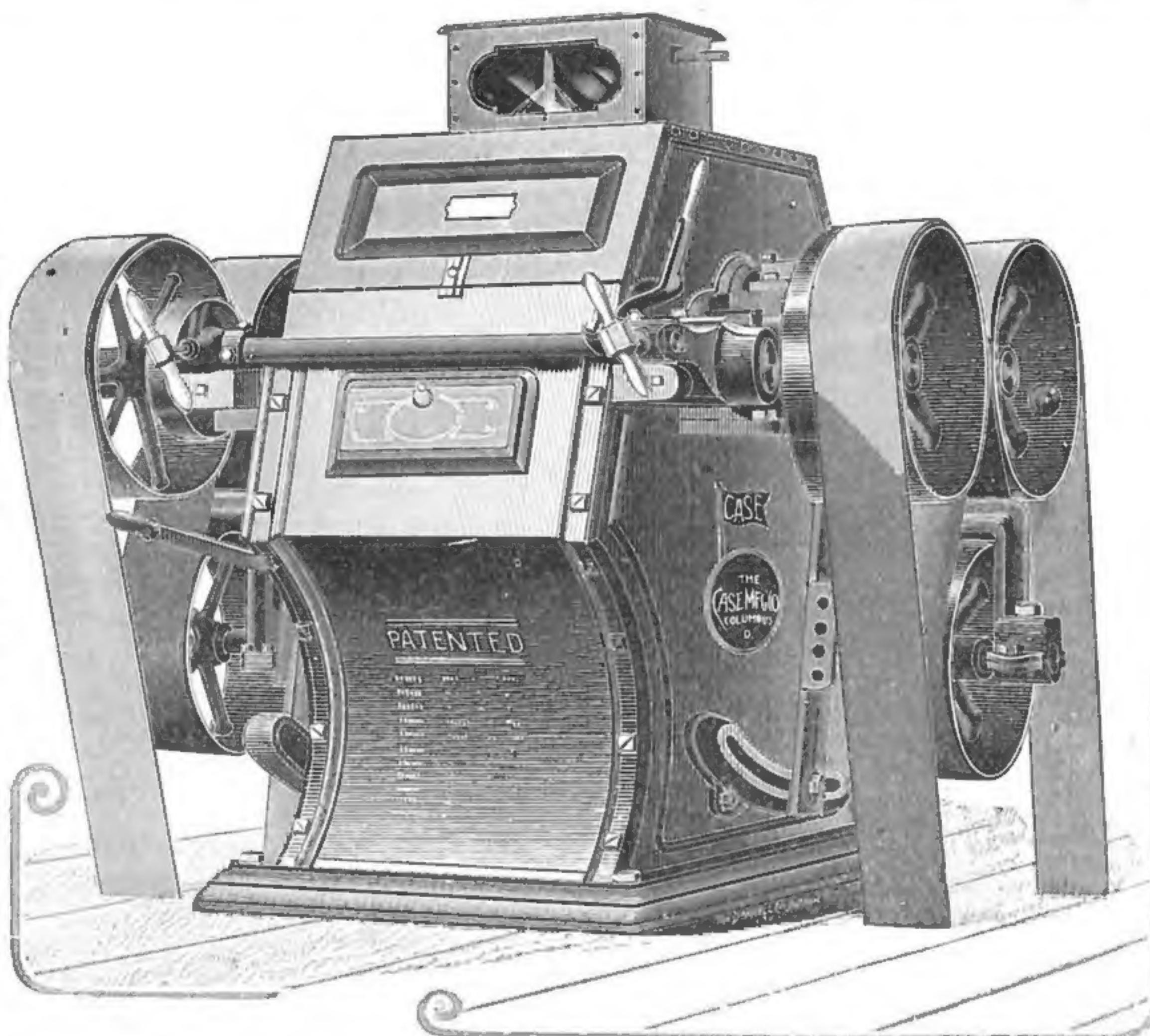
The frame is of iron with a heavy iron base.

The wood-work in top is of select cherry and black walnut, carefully shellacked and varnished.

The handles of adjusting screws and levers are finely nickel plated.

The joints are tight and dustless.

The adjustments easy, simple and perfect.



The roll bearings are wide and finely babbitted.

The belt drive is positive—no little short belts to slip.

The door for examining stock is a great convenience.

The arrangement for leveling rolls, simple and accurate.

The rolls can be thrown apart their entire length by one movement of the lever, and brought back again to original position, requiring no re-setting or experimenting.

Each machine is provided with our AUTOMATIC VIBRATING FEED, which requires no attention, and never fails to spread the feed the entire length of the rolls.



Please Read These Testimonials.

LITCHFIELD MILLING CO., MANUFACTURERS OF FLOUR.
LITCHFIELD, ILL., Sept. 14, 1889.

Case Manufacturing Co., Columbus, Ohio.

GENTLEMEN: We are in receipt of your favor of the 11th inst., and in reply would say we have twenty CASE AUTOMATIC FEEDS on our Dawson and Allis Rolls, and we are greatly pleased with them. We have tested the Feeds thoroughly on different materials, and find they work as well on bran and germ and other soft materials, as they do on middlings. We have derived great benefit from the use of them, and can cheerfully recommend them to the milling fraternity. Yours truly,

J. C. EDWARDS, General Manager.

OFFICE OF A. J. MILLER, PROPRIETOR WHITE ROSE MILLS.
DEALER IN FLOUR, GRAIN AND MILL FEED.
METAMORA, IND., Nov. 19, 1889.

Case Manufacturing Co., Columbus, Ohio.

GENTLEMEN: Your Feed arrived O. K., and placed it in working order in a very short time. You have furnished me a daisy Feed. After regulating your Feed, it needs no more attention. It pays for itself in one week over the "Roller Feed" in cleaning up the

stock, and also insuring the superiority at same time. I forward you the amount of bill.

Yours truly, A. J. MILLER.

TREZEVANT, TENN., Feb. 27, 1889.

The Case Manufacturing Co.

GENTLEMEN: We have five double stands of Rolls with Roller Feeds on all of them. A short time ago one of your agents induced us to try one of your Automatic Shaker Feeds. We find that it works much better than the Roll Feed, distributing the material the whole length of the Roll. We heartily recommend your feeds to any one wishing to put in new machinery.

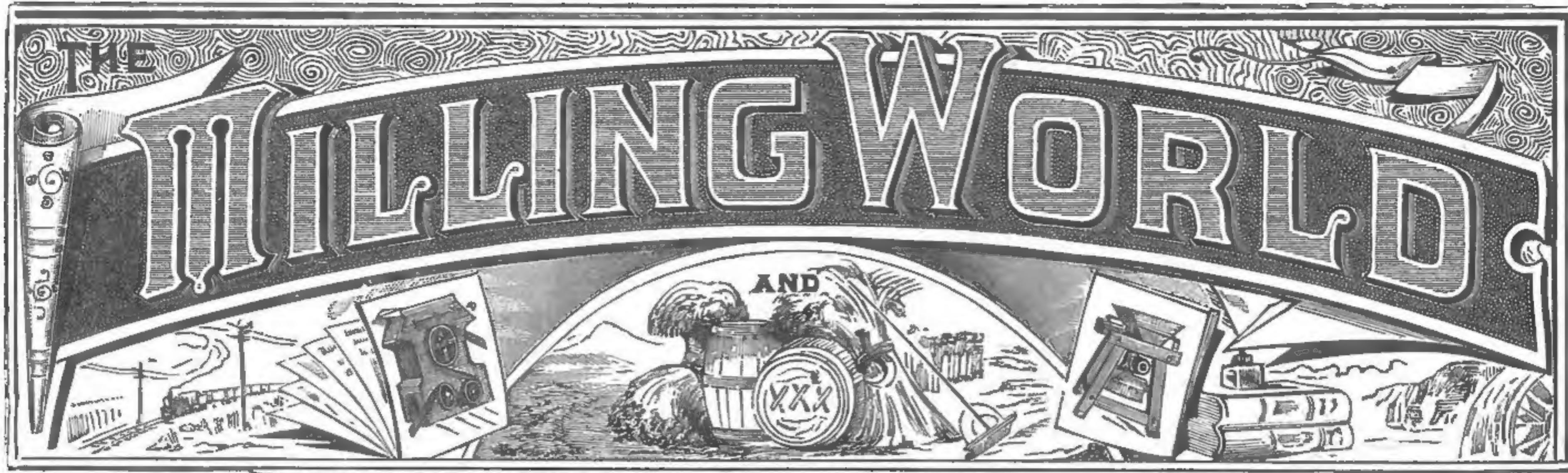
Respectfully yours, FUQUA, HARRIS & CO.

(W. C. MANSEFIELD & CO., MERCHANT MILLERS.
CLEVELAND, TENN., Aug. 29, 1889.)

Case Mfg. Co., Columbus, O.

GENTLEMEN: If we were to build a hundred mills, we would not permit any other than the "CASE ROLL" to enter them. They are the best roll on earth. Yours truly,

W. C. MANSFIELD & CO.



CHRONICLE OF THE GRAIN AND FLOUR TRADE

PUBLISHED EVERY MONDAY MORNING.

VOL. XXII. No. 11.

BUFFALO, N. Y., MAY 12, 1890.

\$1.50 PER YEAR.

IT must make the mismanagers of the Millers' National Association tired to see State Associations outgrowing it in numbers and influence. It is no wonder the "National" men feel desirous of absorbing the State Associations. What will be the result of crowding the large minor associations into the very small "National" boot? Will there be "corns" as the outcome of the crowding? Can the State Associations afford to be merged? Will not membership in the "National" rather hurt than help them?

CERTAIN esteemed contemporaries are jubilating over the recent failures of bucket-shop gamblers. They should not forget that the bucket-shop men have not lost any thing in the failures. The freight is paid by the customers of the bucket-shops when failures occur. The bucket-shop managers are not in the business to lose. No matter how the markets go, they "make," and their customers foot the bills. A "bucket-shop" failure generally means a gain by the owner of the shop. A genuine bucket-shopper can "fail" every day in the year, Sundays included, and still be "in" at the end of the year.

DOUBTLESS the mismanagers of the "National" will go on and adopt, at the Minneapolis convention, the proposed new constitution, "flour-barrel-voting clause" and all. With that clause adopted, the "big" millers will have everything their own way, so far as action by the organization is concerned. Well, the adoption of the "flour-barrel" clause can not make much difference in the situation, after all. The "National" does not care for the average and small miller. The average and small millers do not care for the "National." Thus honors are easy, whether men or flour-barrels vote in the future councils of the so-called "National."

IT is stated that Mr. George T. Smith, of Jackson, Michigan, is preparing for the trade a roller-mill that is expected to prove as important a machine in its line as did the famous Smith middlings-purifier in its line. The time is favorable for the introduction of machines that economize space, time and power, and if Mr. Smith's new roller-mill accomplishes what is predicted of it, he will once more lay the milling fraternity under obligations quite as great as those referred to in the resolutions adopted by the Millers' National Association in June, 1888, at the convention in Buffalo. Millers will await the new roller-mill's appearance with great interest.

CORRESPONDENTS who are asking for information about the convention of the Millers' National Association, in Minneapolis, in June, know just as much about the programme as do the editors of the milling journals who are not in the secrets of the "National." THE MILLING WORLD replies to inquirers in a dozen States that it has no advice to offer about visiting Minneapolis during the convention. It does not believe that the meeting will be of any particular interest to a single flour-maker outside of the small number of exporting millers who manage the "National." Great efforts are being made to increase the "National" membership, but the increase will not be permanent so long as present ideas

prevail in the mismanagement of the "National." Minneapolis may attract a large number of visitors in June, but, unless a new departure is made by the "National" at that meeting, the organization will soon tumble into the grave on whose edge it has been standing so long.

PERSPIRING inventors, who are offering to "harness Niagara Falls" and thus "make Buffalo the greatest milling center on earth," will do well to bear in mind that the great cataract is not in the city of Buffalo. It is fully twenty miles from the business center of Buffalo to the cataract, a fact which the inventors do not seem to be able to realize. Buffalo is growing, and one day the city will probably include the Falls, and it is safe to predict that, long before that day is at hand, this city will have become a very great "milling center," independently of both the cataract of Niagara and the multitudinous inventors. There are great natural causes that will make Buffalo a milling center, and those causes are coming to be recognized.

NEWSPAPERS in the southern States displayed the bad taste to draw unpleasant comparisons between the North and the South two years ago, when blizzards were scouring the northern States. They pointed out that the South was free from serious drawbacks of a meteorological origin, and that the northern settlers would do better to move to the South. The northern newspapers have refrained from returning the compliment since the South has been scourged by frosts and cyclones and submerged by terrible floods. Our southern contemporaries, in their present acute distress, will be able to appreciate the forbearance of the northern papers in this case, and hereafter they will realize that it is no trifling matter for any section of the United States to suffer seriously from unpreventable disasters. Northern sympathy will go out in good hard and potential cash to the dwellers in the submerged States, and our southern neighbors will once more learn that the North has a heart equal to all the demands likely to be made for help.

GERMAN investigators continue to affirm that the Hagemacher "Plansichter" is a brilliant success, saving power, time and money, improving the quality and quantity of product, and avoiding much of the usual wear and tear of the average bolting-machine. The Kreiss "Gegenflaechensichter" also continues to excite enthusiasm. If half claimed for them be true, both are wonderful machines, and it will be well for American machinery makers to examine them. If they are more efficient and more economical machines than others employed for the same work, American flour-makers will wish to know something of them. It seems incredible that the "Plansichter" can be so far superior to other German machines as it is claimed to be, especially in view of the fact that, in competition with the George T. Smith middlings-purifier at Louvain, Belgium, over a year ago, it signally fell below the Smith machine in work. Has any American manufacturer examined the "Plansichter" or the "Gegenflaechensichter" well enough to give assurance of either the falsity or the truthfulness of the claims made for them?

The DAWSON ROLL WORKS CO. FOUNDERS & MACHINISTS,

—MANUFACTURERS OF THE—

Dawson Roller Mills —AND FURNISHERS OF— CHILLED IRON ROLLS

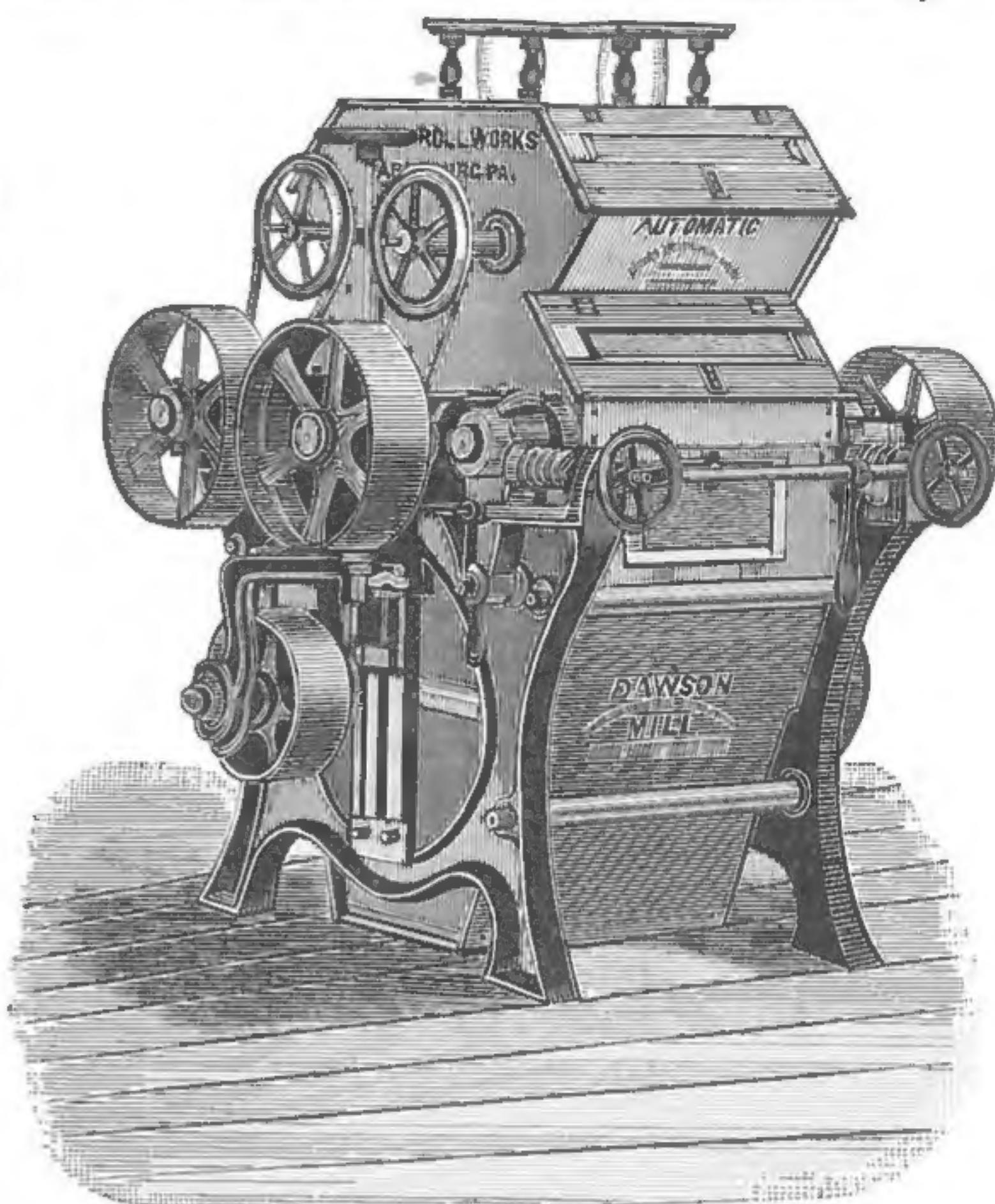
WITH DAWSON PATENT CORRUGATION.

ALL STYLES OF FLOUR MILL ROLLS RE-GROUND AND RE-CORRUGATED WITH ANY FORM OF CORRUGATION.



We have had large and extended experience in grinding and corrugating chilled rolls for milling, and have one of the largest and most improved plants in the country for this work, which enables us to meet the most exacting requirements of the trade promptly.

ORDERS AND CORRESPONDENCE SOLICITED.



DAWSON ROLL WORKS CO.

South and Short Streets,

HARRISBURG, PA.

The Cowles "Reliable" Sectional Wood Pulley

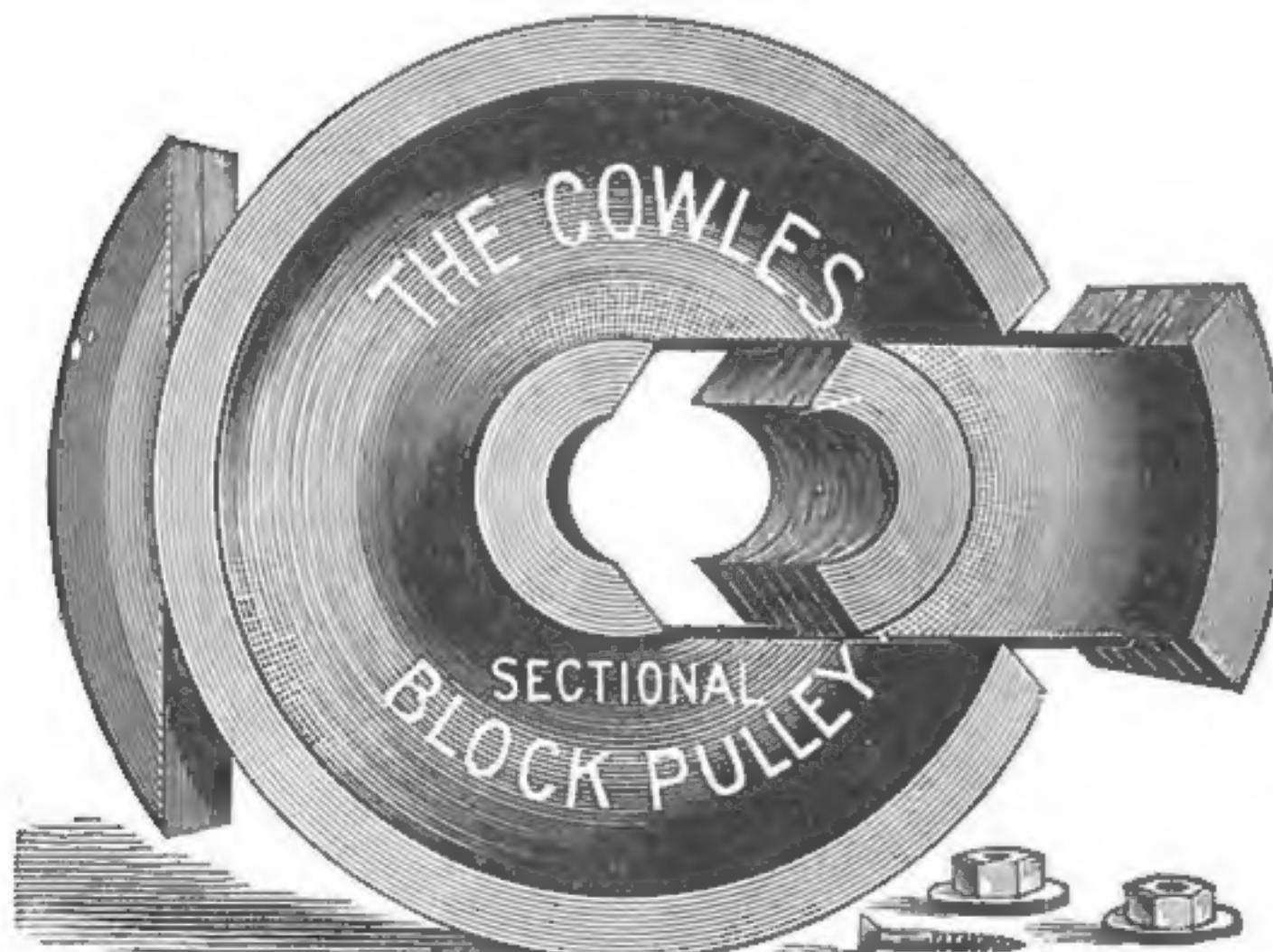


Web made of several layers glued together with grain crossing, and faced up on both sides. Iron flanges securely bolted to web. Rim put on after web has been trued up. Web and rim turned on inside and face, making perfect running pulley. Rim supported entire circumference. Positive self-gripping device for securing pulley to shafting, which is self-centering, and can not slip with wear.

A wooden rim pulley transmits from 30 to 50 per cent more power with same belt than an iron one.

Two-thirds lighter than iron, bearings will wear longer and the expense for lubricant will be less.

Having solid web, there is no air resistance. The "Reliable" can be placed on shaft or position changed in one-fourth the time required with any other pulley.



EDWARD GERMAIN, SOLE MANUFACTURER, SAGINAW, MICH., U.S.A.

PUBLISHED EVERY MONDAY. OFFICES: { Corner Pearl and Seneca Streets,
Over Bank of Attica.
MCFAUL & NOLAN, - - - PROPRIETORS.
THOMAS MCFAUL. JAMES NOLAN.

SUBSCRIPTION.

In the United States and Canada, postage prepaid, \$1.50 Per Year, in advance; remit by Postal Order, Registered Letter, or New York Exchange. Currency in unregistered letter at sender's risk.

To all Foreign Countries embraced in the General Postal Union, \$2.25 Per Year, in advance.

Subscribers can have the mailing address of their paper changed as often as they desire. Send both old and new addresses. Those who fail to receive their papers promptly will please notify at once.

ADVERTISING.

Rates for ordinary advertising made known on application. Advertisements of Mills for Sale or to Rent; Partners, Help or Situation Wanted, or of a similar character One cent per word each insertion, or where four consecutive insertions are ordered at once, the charge will be Three cents per word. No advertisement taken for less than 25 cents. Cash must accompany all orders for advertisements of this class.

Orders for new advertisements should reach this office on Friday morning to insure immediate insertion. Changes for current advertisements should be sent so as to reach this office on Saturday morning.

EDITOR'S ANNOUNCEMENTS.

Correspondence is invited from millers and millwrights on any subject pertaining to any branch of milling or the grain and flour trade.

Correspondents must give their full name and address, not necessarily for publication, but as a guarantee of good faith.

This paper has no connection with a millfurnishing house and aims to represent the trade without prejudice, fear or favor.

Address all communications

THE MILLING WORLD, BUFFALO, N. Y.

Entered at the Post Office, at Buffalo, N. Y., as mail matter of second-class.

SITUATIONS WANTED.

Advertisements under this head, 25 cents each insertion for 25 words, and 1 cent for each additional word. Cash with order. Four consecutive insertions will be given for the price of three.

SITUATION WANTED.

Head miller with over 20 years experience want to make a change this spring. Address, A. MILLER, 67 Weaver Alley Buffalo, N. Y.

WANTED.

A situation to run a 50 to 100-barrel roller mill, Pennsylvania, New York, Ohio and Michigan preferred. Address MILLER, Box 75, Union City, Erie Co., Pa.

WANTED.

A situation in some flouring or grist mill, by a man who has had good experience with the buhr system. Can furnish best of references. Address, THOMAS H. NICHOLAS, DeRuyter, N. Y.

SPECIAL ADVERTISEMENTS.

Advertisements of Mills for Sale or Rent, Partners Wanted, Machines for Sale or Exchange, etc., etc., cost 1 cent per word, for one insertion, or 3 cents per word for four insertions. No order taken for less than 25 cents for one insertion, or 50 cents for four insertions. Cash must accompany the order. When replies are ordered sent care of this office 10 cents must be added to pay postage.

FOR SALE.

One new Hominy Mill, capacity 5 to 8 barrels per hour. Address J. C. DIXON, Pocomoke City, Worcester County, Md.

FOR SALE.

A five run stone mill, with five water-wheels Building 40x54, with five floors. A never-failing water power on Flint River, about 200 feet from R. R. track. Property worth \$15,000. Will sell for less than half that amount. For particulars call on or address RODGERS BROS., Genesee Village, Genesee Co., Mich.

1013.

MILL MACHINERY FOR SALE.

One No. 0 Standard Combined Separator, Smutter and Brush Machine; new, best make. One 20-Inch Under-Runner Portable Mill, French Buhr Stone, capacity 10 to 12 bushels per hour; new, best make. One 14-Inch Vertical Feed Mill; best make, new, a bargain. One No. 6 Dustless Separator; new, a bargain. One No. 1 Full Rigged Combined Dustless Separator; new, a bargain. Four Corn Cob Crushers, right or left hand, driven from above or below, best make; capacity 40 to 60 bushels per hour. Three No. 1 Corn Shellers, capacity 200 to 300 bushels per hour; new. One No. 2 Purifier. New. Best make. A bargain. One 20-Inch Portable Mill. One 18-Inch Double Gear Portable Mill. For particulars address, FRANK SMITH, care of THE MILLING WORLD, Buffalo, N. Y.

5tf

FOR SALE CHEAP.

One 36-In. Iron Frame Portable Mill, French Burr Stone, Used about 2 months.

One 20-In. Vertical Mill, French Burr Stone, Used about 30 days.

Three Pair 42-In. Old Stock Feed Stones.

FOR PARTICULARS ADDRESS,

SAMUEL CAREY, 17 BROADWAY, NEW YORK.

FOR RENT.

Clinton Mills, at Black Rock, Buffalo, for rent on reasonable terms, recently repaired and put in good order. Apply to CHAS. DANIELS, over 811 Main Street, Buffalo, N. Y.

FOR SALE.

One of the best paying 65-barrel roller mills in Nebraska. Nearly new, and in a locality producing a big surplus of excellent wheat. Address, A. C. PUTNAM, Chadron, Neb.

FOR SALE OR EXCHANGE

For water-power mill, two good farms 24 miles west of Richmond, Va., in Powhatan county, two miles from railroad, same distance from store, post office, mills, &c. Good buildings, plenty of water and fruit, &c. Address, H. L. AVERY, Hadley, 11 Pa.

FOR SALE, EITHER ONE CHEAP.

A circular saw planing and feed mill, 90 acres of good land, two houses, one cost \$1200, best water power in county. 42 H. P. Turbine wheels. Three miles east of Ashtabula, O.

OR,

Short system full roller mill, capacity 2½ barrels of flour per hour, three grades. Buck wheat rig with Cranson shucker. Feed stone, &c. 40 H. P. Erie engine; locomotive boiler, all nearly new, on Main street, Ashtabula, O., two minutes walk from Post Office. Big retail trade. For particulars enquire of L. B. HOWARD, Ashtabula, Ohio. Box 488.

THE fire-losses in the United States and Canada during April, this year, footed \$8,285,520, against \$15,987,000 last year, and \$11,326,350 in 1888. The milling and allied industries contributed \$321,000 to the total in April. The total losses for the first four months of 1890 foot \$33,318,145, against \$46,597,700 in 1889 and \$48,497,950 in 1888.

THE flour-barrel-voting clause in the proposed new constitution for the Millers' National Association makes that instrument resemble a barrel of high-grade flour dosed with a single liberal injection of red-dog. The rest of the constitution, like the rest of the flour, is good, but the flour-barrel clause, like the red-dog, vitiates the whole and makes it incapable of turning out a desirable product.

PAPER-WHEAT is now charged with being the real cause of the low prices of wheat and flour the world over. Of course, paper-wheat is a bad influence, but it is hardly able to keep up visible stocks and regular supplies of real edible wheat throughout the world. These stocks and supplies should not be ignored in diagnosing the disease of the grain and flour trade. When stocks and supplies are short, all the paper-wheat between Chicago and Timbuctoo can not keep wheat and flour down.

IT is rumored that the editor of the Minneapolis "Yahoo" is preparing a 7-hour speech for delivery at some favorable time during the convention of the "National" in that city in June. Milling-journals that propose to report it in full will do well to lay in several car-loads of big I's, as that letter will constitute the principal feature of the address. Forewarned is forearmed. Corner the lead-market, boys, and charter all the type-foundries, in order to be prepared for the deluge of ozonized megalcephalic egotism that will unleash or disboom itself in June.

SAYS the London, England, "Agricultural Gazette": "The millers of London have for their grists the wheats of the whole world, and they necessarily possess machinery which is capable of taking out all the flour there may be present in wheats of all sizes, colors and natures, and yet they are not happy, because up to a certain point, that of London 'households' flour, Uncle Sam can beat them at value for money. Not only so, but the American millers can beat us both above and below that point; in fact, can beat the whole world at selling flour, as they are doing, only that the American people eat the best and sell the rest, whereas some other exporting countries, Austria-Hungary, for example, do just the other thing." It is surprising that Great Britain buys so much American fluff, and red-dog, and bran, and consumes it under the delusion that it is fine flour! It is still more surprising that the American refuse sent to Great Britain should compete so successfully with other genuine flours! It is most surprising that the poorest American flours sent to Great Britain should command better prices than the best Austria-Hungarian flours! The flour situation in Great Britain is "one of them things that no fellah cawnt never find out nawthin' abaout!"

POINTS IN MILLING.

CLEANLINESS may, or may not, be next to godliness, where the old adage locates it, but it is certainly next to success in the flouring-mill. Not only is it next to success, but it is also indispensable to success in the mill.

By cleanliness I do not mean spasmodic, periodic splurges to expel accumulated filthiness. I mean the thorough, the incessant, the systematic effort to prevent the accumulation of filth anywhere in or about the mill. Much has been said, and well said, about the necessity for cleaning grain thoroughly before sending to the buhrs or rolls, and quite as much needs to be said about cleaning the mill and keeping it clean.

THE miller who has no dislike for fetid festoons of flour and dust laden cobwebs, for beams coated with villainous dust, for windows plated with opaque deposits of flour and dough, for moldy bags, for sour bins, for heaps of indescribable nastiness in every dark nook and corner, for dripping oil from numerous bearings, and for all the other forms of "matter out of place" which the scientist calls "dirt," will never be able to do the finest work. His flour is sensitive to foul odors. It is tainted by contact with dirt. Once tainted, it goes on spoiling "on its own hook," and in cases of long storage in the dirty mill it becomes little better than dirt itself. Such flour, however fine it might have been when made, is not fine after being kept in a foul atmosphere in moldy bags or fetid receptacles of any sort.

CLEANLINESS may be the last, but it is not the least, of the factors that go to make up successful work in flour-making. Filthiness is a gross form of waste that is without excuse in a mill. It is a waste that differs from the minor wastage of fuel, of steam, of oil, because it involves the entire product of the mill and attacks the businesss of the owner at its vital point, the point of contact with his customers. The dirty miller can not be made to understand that flour is damaged by contact with dirt, either in solid or gaseous form, and it is only by the hard knocks of lost custom and incessant complaint he is made to understand that his ideas are costing him dearly.

ONE-THIRD of 1890 is gone, and the millers of the United States have heard of only one "revolutionizing" milling-machine thus far. This indicates a rather slim record for the year. I hear frequent inquiries, on my visits to mills, concerning those two terrifically named German flouring-machines so often mentioned in THE MILLING WORLD, the Haggenmacher "Plansichter" and the "Kreiss" Gegenflaechensichter." A description of these machines, with an official account of their capacity and the quality of their work, would interest many American flour-makers. Is there any authoritative statement obtainable? (We have attempted to get such statements, but all replies to inquiries, and all published reports on the work of these machines, are fragmentary and unsatisfactory. Of course, their work has been mainly experimental up to this time, and more work and experimenting are necessary to locate them permanently in the niche to which their proved merits shall entitle them. ED. MILLING WORLD).

I HAVE always been amused at the English and Hungarian views of American flours. The English critics, judging from the average American flour so generally used in England, rate the American product below the Hungarian product. The Hungarians contemptuously refuse to consider any comparison whatever between their flour and the American flour. They claim that their flour is out of reach of comparisons with American flour. The humorous point in these views lies in the fact that most of the high-grade American flour is consumed at home, very little of the best product going to England, and, when it does go, only serving as a floater for rotten flours from all over the world, while the Hungarians eat their own low-grade and export only their high-grade product. It follows that the American flour sent

to Great Britain, often called "merely respectable offal" by British critics, does not really represent the average product of the American mills, while the small amount of Hungarian fine-grade sent no more truly represents the average product of the Hugarian mills. Hence the comedy of errors by British and Hungarian critics in their satires on American "offal." I think it would astonish the British and Hungarian critics to visit the United States and examine the average flours used by the great bulk of American consumers. They would find that the American consumer is the most fastidious consumer in the world, and that his demand necessitates the production of the very best, finest and strongest flours that can be made from the very best wheats grown on earth, on the very finest machines used on earth, and by the most skillful millers on earth. Having learned these truths, they would cease their humorous, though malignant, attacks on American flour-making. They would cease to regard American "offal" as the only product of American mills, and they would cease making themselves ridiculous by criticizing a straw bugaboo of their own imagining.

THE more I observe the behavior of slate roofs in fires, the more firmly I am convinced that, however desirable slate may be for general roofing purposes, it is not a good fire-resistant material. It goes to pieces too easily under heat to be valuable. It is a good material so far as durability is concerned, and there its value ends.

MILL fires have been "over numerous" recently, and, in view of the fact that most of the burned mills were not insured at all and not one of them was so heavily insured that its owner could afford to burn out, it seems that the fiend of carelessness is getting in its work. These costly fires are labeled "mysterious," or "incendiary suspected," or "origin unknown," or similarly through a long line of chestnutical terms, but the plain fact remains that most of them are caused by sheer carelessness. Making due allowance for the proportion of mill fires chargeable to spontaneous combustion, there are many fires that have no other explanation than pure carelessness. Matches are left lying around. Stoves are left standing open, with coal even with the base of the openings. Cigar stumps are thrown about carelessly. Bearings are neglected. Oil and other combustibles are scattered promiscuously. Dust is allowed to accumulate. Naked lights are used against all prudence. Means for extinguishing incipient fires are not provided. Everything invites conflagration. When conflagration occurs, it is "mysterious," or "unexplained," or something else than carelessness.

MILLERS, look over your plants and see what fuel your operatives are allowing to pile up in a hundred corners. Set them to clearing out the dangerous deposits. Make stringent rules against careless handling of fire in any shape about the mills. You can't "afford to burn out," and you will not "burn out" if you use sensible precautions. Reduce the liabilities to burn, and provide means for extinguishing small fires.

I OBSERVE that most of the inventions in the line of milling-machines nowadays are merely improvements on existing machines. There seems to be a tacit understanding that the field is pretty well supplied, and that efforts put forth to produce novelties will end in failure. Of course the cranks are as full of novelties as ever, but the practical investigators are devoting themselves to the problem of bettering the fine machines already in use. This is a hopeful sign of the times.

MILLING PATENTS.

Among the patents granted May 6, 1890, are the following:

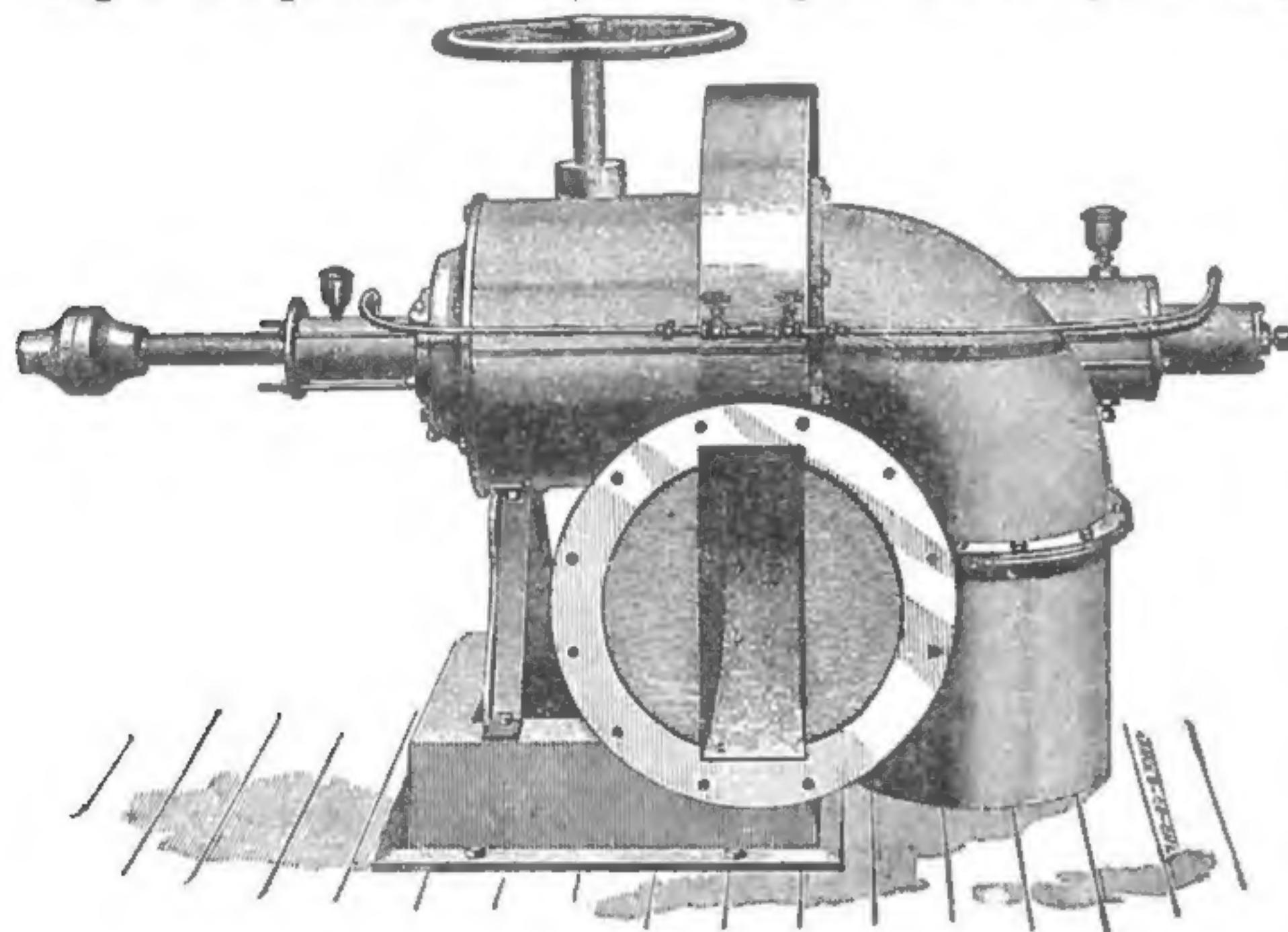
James A. Currie, Springfield, O., No. 427,159, a process of manufacturing hominy-flakes or corn-flakes, which consists in first reducing the corn to hominy, then cooking the grains till they have been gelatinized or converted into dextrine, and then crushing the grains without destroying their individuality into large, thick, flattened flakes.

Riley A. Stubbs, Greenville, O., No. 427,277, a bolting-reel,

containing the combination, with the casing having inclined hopper-sides, of a reel mounted to turn in the said casing, transversely-extending dividing-boards through which passes the said reel, a series of gates held below the said dividing-boards and adapted to actuate the same, conveyors located below the said gates at each side thereof, and a lined bearing formed on the top of the partition of the said conveyors and fitted against the under side of the said gates.

A WHEEL FOR HIGH HEADS.

Herewith is illustrated an improved turbine wheel for high heads, manufactured by the Flenniken Turbine Company, of Dubuque, Iowa, from whom priced and illustrated circulars may be obtained. The runner is of the same style as that used for so many years in the Flenniken Turbine, but the case is of the scroll pattern, with all its advantages and without its defects. Inside the scroll and around the runner is arranged a series of stationary guides or chutes, which prevent a side pressure tending to press the wheel out of the center and wear the step out of true. The chutes obviate this and deliver to all parts of the wheel the proper amount of water at the best angle of delivery. The manufacturers of this wheel under consideration claim that their improved gate remedies all the faults of the scroll case and preserves its virtues. It consists of a turned cast hoop or cylinder, operated between the chutes and the runner to regulate the amount of water passing to the wheel according to the power desired, or to stop the wheel by shutting



IMPROVED WHEEL FOR HIGH HEADS.

off the flow entirely. Being in one piece, it never breaks or gets leaky, but can be depended upon under high heads to operate easily and close tight, for it is balanced by a water-pressure on all sides. The gate mechanism consists of two chains attached to grooved sheaves, fastened to a shaft so arranged that when the shaft is turned in one direction the gate is opened, letting the water pass through the chutes onto the wheel, and when turned the other way the gate is forced back between the chutes and wheel, cutting off the water to any desired extent, or stopping the flow entirely. This wheel can be bolted to a wooden flume or penstock, or to an iron pipe leading to reservoir. It can also be set at any point between head and tail water not exceeding 25 feet above tail water (and the makers would not advise over 20 feet) by extending the draft-tube down so as to submerge the lower end in tail water. The manufacturers make the following claims for their wheel, which they submit to the investigation of the discriminating: 1. Strength, lightness, symmetry of construction. 2. A perfectly balanced gate, governable under any pressure, and tight when closed. 3. The best application of the water at whole or partial gate, and the highest efficiency in proportion to water used. 4. A smaller supply-pipe can be used than would be possible with any other style of case, as a high velocity of water through supply-pipe is not detrimental, owing to the flow at all points in the case being in the direction the wheel revolves. 5. Being mounted on a rigid base, it is easy to set up, and all parts are held in line. 6. Economy in cost, economy in freight and economy in cost of pipe connections.

When desired, these wheels are arranged in pairs on one shaft, discharging through one draft-tube, the price of two wheels thus arranged being double that of the single wheel. Any number of wheels can be arranged in one line that may be desirable.

THE FARMERS OF THE WEST.

According to the pessimistic howlings of the sensational political press, the farmers of the West are being ground to the dust by the conscienceless trusts, which, it is asserted, are making the farmers pay more for everything they use. According to the cool facts in the case, the farmers of the West were never able to buy necessities so cheaply as they can buy them at the present time. A Fort Dodge, Iowa, newspaper has compiled a statement of the prices paid by farmers in 1880 and in 1890 for farm implements, the prices being gathered from the same dealers. The prices of the principal implements compare as follows:

	Prices, 1880.	Prices, 1890.
Self binder.....	\$315	\$130
Corn planter and check rower.....	80	40
Fourteen-inch steel beam walking plow.....	28	14
Riding cultivator.....	45	25
Walking cultivator.....	35	20
Mowing machine.....	85	50
Stowbridge feeder.....	35	13
Wood pumps.....	15	6
Farm wagon.....	85	50
Two-seated spring wagon.....	160	75

Buggies and carriages all reduced about one-half. Harrows generally reduced one-half. Corn shellers reduced one-half. The store books consulted revealed the following comparative prices for hardware:

	Price, 1880.	Price, 1890.
Barb wire, per lb.....	\$0.10	\$0.04
Fence staples, per lb.....	.10	.05
Iron nails, per keg.....	6.00
Steel nails, per keg.....	2.80
Plain wire, per lb.....	.06½	.03½
Wash boiler.....	2.25	1.75
Stove pipe joint.....	25	.20
Horse shoes, per keg.....	8.00	4.50
Tool steel, per lb.....	.20	.12½
Plow steel, per lb.....	.18½	.08½
Cook stove.....	33.00	24.00
Mattock and handle.....	1.40	.85
Wrench.....	.75	.40
Blossburg coal, per cwt.....	.80	.45
Bull ring.....	.40	.25
Putty, per lb.....	.10	.05
Shot, per lb.....	12½	.08
Iron, per lb.....	.05	.03
Four-tined fork.....	.75	.50
Seat spring, pair.....	1.70	1.00
Lantern.....	1.50	.75
Common clevis.....	.20	.10
Milk pans, per doz.....	2.25	1.00
Buggy springs, per lb.....	.20	.10
Swedes Iron, per lb.....	.12½	.06
Cartridges, per box.....	.35	.15
Wire cloth, per foot.....	.06	.03
Post auger.....	2.25	1.25
Cast washer, per lb.....	.05	.03
Slop pail.....	1.00	.65
Tin cup.....	.15	.05
Zinc, per lb.....	.10	.10
Pipe collars.....	.10	.05
Door knobs.....	.20	.10
Cast butts, with screws.....	.20	.12½
Chain per lb.....	.22	.12
File.....	.65	.25
Tin, per sheet.....	.35	.20
Door latches.....	.25	.10
Basket.....	.85	.45
Roof saddle.....	1.00	.65
Door key.....	.10	.05
Covered pail.....	.20	.10
Wheelbarrow.....	2.25	1.60
Oil can.....	.85	.40
Plane.....	1.00	.60
Pie plates, per doz.....	.70	.35
Mortise lock.....	.90	.35
Cistern pump.....	4.25	2.25
Universal wringer.....	7.00	3.00

Pocket and table cutlery reduced one-half.

Window glass reduced 25 per cent.

Equally instructive is the comparative prices paid by the

farmers for groceries in the two years under consideration, the books showing the following:

	1880.	1890.
Sugar, granulated, per lb.....	\$.12½	\$.07
Sugar, Standard A.....	.11	.06 2-5
Sugar, C.....	.10	.06 ½
Kerosene oil, 150 test, per gal.....	.25	.13
Kerosene oil, 175 test, per gal.....	.35	.15
Salt, per bbl.....	2.25	1.25
Flour, per cwt.....	4.50	2.50
Coffee—Java.....	.33	.33
Coffee—Rio.....	.25	.25
Canned tomatoes, per can15	.10
Large butter crackers, per lb.....	.12½	.10
Soda crackers, per lb.....	.10	.06
Soap, per cake.....	.07	.05

Crockery 25 per cent. reduction. Teas 30 per cent. reduction. Tobacco 35 per cent. reduction. Dry goods prices tell an equally emphatic story of reduction, as follows:

	1880.	1890.
Unbleached muslin per yard.....	\$.08	\$.06
Calico.....	.07	.05
Gingham.....	.12½	.10
Worsted dress goods.....	.15	.12½
Worsted dress goods.....	.35	.25
Worsted dress goods.....	.65	.50
Worsted dress goods.....	1.00	.75

Laces and embroideries 33½ per cent. reduction. Silks and velvets 25 to 33½ per cent. reduction. Carpets 25 to 33½ per cent. reduction. General reduction on stock of dry goods store 23 to 33 per cent. On clothing comparative figures can not well be given because qualities vary. There has been since 1888 a general reduction on ready-made clothing ranging from 30 to 50 per cent., and there has been decided improvement in the stability of ready-made clothing. A pair of overalls sold for \$1 is warranted not to rip and lasts in every-day hard labor for months. Good serviceable suits can be had for \$7 to \$10. The average reduction in the retail price of foot wear since 1880 is 33½ per cent. The silver watch which retailed in 1880 at \$20 now retails at \$12. The set of knives and forks sold in 1880 at \$6 now retails at \$3. Every thing in the store has suffered from 33½ to 50 per cent. reduction. The retail prices of furniture have suffered a reduction ranging since 1888 from 25 to 50 per cent. A half-dozen wooden chairs, such as now sell for \$3, sold then for \$4.50 to \$5. Bedsteads sold now at \$1.75 and \$2.50, sold then at \$4 and \$6. The cut is heavy on all articles, but most on the machine-made articles. Drugs have been reduced 20 to 30 per cent., paints 20, lamps 50, stationery 50, books, standard authors, 75, school-books 30, organs and pianos 25, newspapers 25, interest from 10 to 5 per cent., and so on all along the line.

Beside these cheaper wares, the "cormorant" railroads have actually favored the farmers. In 1880 the freight rate on wheat from Fort Dodge to Chicago was 33 cents, and on other grain 27 cents per hundred, now the rate on wheat is 22 and other grain 20. In 1880 the rate of all stock from this point to Chicago was \$69 per car 28 feet long, now that rate is \$55 for cattle and \$45 for hogs per car of 35 feet. In 1880 the freight on a barrel of salt from Chicago to Fort Dodge was 63 cents, now it is 33 cents. In 1880 the rate on lumber from Dubuque to Fort Dodge was 14 cents, now it is 8.3 cents. In 1880 the rate on first-class freight from Chicago to Fort Dodge was 92 cents, now it is 70. With all these advantages in 1890, the Iowa farmer is not so badly off as the demagogues make him out to be. Even the low price of his farm produce to-day are not so low, in proportion to prices paid for necessities, as they were in 1880, when the Fort Dodge quotations show wheat at 70 to 90 cents, oats at 21, corn at 18 to 20, rye at 55, flax-seed at \$1.25, barley at 50, hogs at \$3.50, cattle \$30 to \$40, roll butter at 16 to 18, tub butter at 18 to 23, and eggs at 7 cents. Evidently the alleged "general agricultural distress" exists more in the imagination of the demagogues than in the West.

WHEN THE MILLING WORLD last November predicted that wheat would be sold in New York this spring at and above a dollar a bushel, certain esteemed bear contemporaries took occasion to "jump onto" us and stamp all our feathers loose

in their sockets. It seems, after all, that we are real prophets, none of the Benner, Blake, Wiggins, Prime, Bradstreets, Tice and DeVoe sort, but real prophets on wheat. May is yet young, and wheat has sold for \$1.02½ a bushel in New York. Private letters from various important winter-wheat sections tell a tale of desolation. In some areas the frost ruin of March is complete. In others the ruin was partial. In no section of importance are the signs reported favorable for any thing more than an average crop. The situation at this writing indicates a winter crop decidedly below the average. In the spring-wheat sections the outlook is not materially better. The season is backward and unfavorable, the acreage is decreased, and a considerable decline from the average seems to be inevitable. THE MILLING WORLD believes that the wheat crop of 1890 in the United States will fall very far below the average in quantity. Of course, extremely favorable weather from this time till harvest would improve prospects greatly, but the season bids fair to be as capricious as the past winter was. Wheat will command good prices all through this year. The situation at home and abroad points to higher prices.

RYE AN IMPORTANT CROP.

Probably very few persons are aware that rye is an important crop in the world. According to a late compilation or crop statistics in England the rye crops of the world during the last three years were as follows:

	1889. Qrs.	1888. Qrs.	1887. Qrs.
Russia.....	71,000,000	90,000,000	97,500,000
Roumania.....	950,000	1,775,000	1,500,000
Bulgaria.....	800,000	1,000,000	1,000,000
Germany.....	22,000,000	25,350,000	28,980,000
France.....	8,300,000	7,150,000	8,164,000
Holland.....	1,500,000	1,250,000	1,750,000
Hungary.....	5,000,000	5,800,000	7,170,000
Austria.....	8,560,000	9,891,000	11,060,000
Sweden.....	2,535,000	2,417,000	2,500,000
Italy.....	500,000	442,000	525,000
Denmark.....	2,000,000	1,975,000	2,101,000
Spain.....	3,030,000	3,000,000	3,000,000
U. S. America.....	3,000,000	2,950,000	2,900,000
Total.....	129,175,000	153,000,000	168,150,000
Equal bu.....	1,107,214,000	1,311,430,000	1,441,300,000

The above figures, which are for the most part from official sources, show how decidedly deficient the last crop of rye has been, and indicate either that the consumption for human food and for distilling is diminishing, or that prices must continue to rule unusually high in comparison with wheat. The figures show the relative importance of the rye crop in comparison with wheat, of which the crop in 1889 was 2,058,793,340 bushels, and in 1888 it was 2,118,728,-284 bushels.

"LONG TO BE REMEMBERED."

Following is the official invitation "To members of the Millers' National Association" sent out by the secretary of that organization, under date of May 1 from Milwaukee: "The fourteenth annual convention of the Millers' National Association will be held at Minneapolis, Minn., on Tuesday, Wednesday and Thursday, June 17, 18 and 19, 1890. You are cordially invited to attend. This meeting will be an important one for our Association, as it will be necessary to adopt a new constitution (the one heretofore in force expiring by limitation) and effect a thorough reorganization. Several threatening patent suits must be considered and acted upon, and a definite plan outlined for the improvement of our flour export trade. We therefore urge the attendance and co-operation of every member. A rate of one fare for the round trip has been secured between Minneapolis and all points on the railroad lines in 'The Western States Passenger Association,' embracing Chicago, St. Louis, Kansas City, Omaha, &c., and one-and-one-third-fare round-trip rate upon certificate plan between these points and places beyond. Elaborate preparations for the entertainment of visitors are being made by the Minneapolis millers, and it is their avowed intention to make this convention 'a long-to-be-remembered occasion.' The very low rate of railroad fare, combined with the important business features of the meeting, and the opportunity to visit the greatest milling center of the world, will doubtless make the coming

convention the largest gathering of millers ever held in the United States."

BREAD IN QUEER SUPERSTITIONS.

The whole world over a special respect has always been paid to bread as the "staff of life." According to a common saying, "The man who wastes bread will live to want." It is not surprising that this staple food of man, which in some form or other is indispensable, should have, from time immemorial, been invested with an almost sacred character, any one who is recklessly careless of the household loaf incurring the risk of poverty one day himself. At the outset it may be mentioned that, as a precaution against mishaps of any kind, many housewives were formerly in the habit of making the sign of the cross on their loaves of bread before putting them in the oven, a practice which is still kept up in some parts of the world. Various explanations have been assigned for this custom, the common one being that "it prevents the bread turning out heavy." Some, again, maintain that the sign of the cross "keeps the bread from going mouldy"; but, whatever the true reason, it is persistently adhered to in the west of England. As evil and maliciously disposed spirits were generally supposed to be powerless to work harm when confronted with the sign of the cross, there is every reason to suppose that this is the origin of this superstition. In days gone by bread was used also as a charm against witches, no doubt from the same cause, being marked with a cross. Among beliefs current among English sailors is the notion that it is unlucky to turn a loaf upside down after helping oneself from it, the idea being that for every loaf so turned a ship will be wrecked. It is also said that, if a loaf parts in the hand while being cut, it bodes dissensions in the family, the separation of husband and wife. Again, it has long been a widespread belief that the whereabouts of a drowned body may be ascertained by floating a loaf of bread down a stream, when it will stop over the spot where the body lies. The following curious account of a body thus recovered near Hull (Yorkshire) appeared some years back in "The Gentlemen's Magazine": "After diligent search had been made in the river for the child, to no purpose, a two-penny loaf, with a quantity of quicksilver put into it, was set floating from the place where the child it was supposed, had fallen in, which steered its course down the river upward of half a mile, when, the body happening to lie on the contrary side of the river, the loaf suddenly tacked about and swam across the river and gradually sank near the child, when both the child and the loaf were brought up to the surface with grapplers ready for the purpose." As recently as the year 1860 a similar experiment was practiced near Durham, and a correspondent of "Notes and Queries," writing in the year 1883, maintains that it is a scientific fact that a loaf and quicksilver indicate the position of the body, as the weighted loaf is carried by the current just as the body is. This practice, too, prevails on the Continent, and in Germany the name of the drowned person is inscribed on the piece of bread, while in France loaves consecrated to St.

L. L. WHITLOCK,
Advertising Agent
FOR MANUFACTURERS.
TRADE JOURNALS A SPECIALTY.
P. O. DRAWER 5323. Boston, Mass.

As Agent for Advertisers instead of Papers, I obtain the Best Rates Possible for my Customers.

Nicholas with a lighted wax taper in them, have generally been employed for the purpose.

ROADS AND TRACTION.—Elaborate experiments have been made by Morin, MacNeil, Rumford, Gordon and others to determine the force required to draw a given load on various surfaces. The results show that the force is from $\frac{1}{10}$ to $\frac{1}{100}$ of a load, depending on the surface. The result of all the experiments demonstrate that the force required to draw one ton over iron is 10 pounds; over asphalt 15 pounds; over wood 21 pounds; over best stone blocks 33 pounds; over inferior stone blocks 50 pounds; over average cobble stone 90 pounds; over macadamized surface 100 pounds; over earth roads 200 pounds.

OUR esteemed cotemporary in Chicago, the "American Miller," offers subscribers life subscriptions for that most valuable journal for \$15. Naturally enough, any move made by a successful journal, like the "American Miller," excites the malice of some of its unsuccessful cotemporaries, and certain ones among them are making the subscription offer the text for an attack on our Chicago cotemporary. We know no journal that can better afford to ignore such attacks than the "American Miller." The miller who takes that journal gets the worth of his money.

UNLESS the signs fail, one of the largest meetings of millers ever held in the United States will take place at Fort Wayne, Indiana, on the 13th of this month. A good programme has been prepared, ample preparations for entertaining visitors have been made, and every thing points to a large and successful convention. The "National" should not be allowed to "hoodoo" the convention.

SPECIAL NOTICES.

BOLTING CLOTH.

Do not order your cloth until you have conferred with us. It will pay you, both in point of quality and price. We are prepared with special facilities for this work. Write us before you order.

CASE MANUFACTURING CO.,

Columbus, Ohio.

Office and Factory, 5th Street, north of Naughton.

TOLEDO MILL PICKS AND STONE TOOL MFG. CO.

Manufacturer

and Dresser of

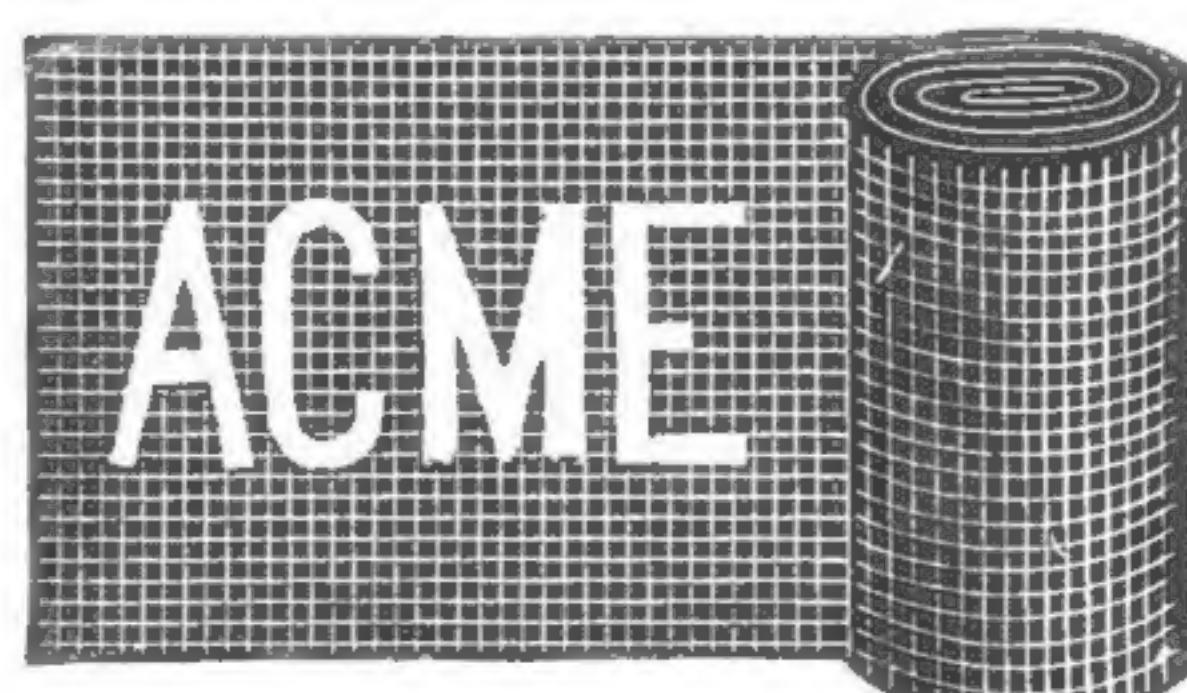
MILL PICKS.

Made of the best double-refined English cast steel. All work guaranteed. For terms and warranty, address, GEO. W. HEARTLEY, No. 297 St. Clair Street, Toledo, Ohio. Send for Circular.

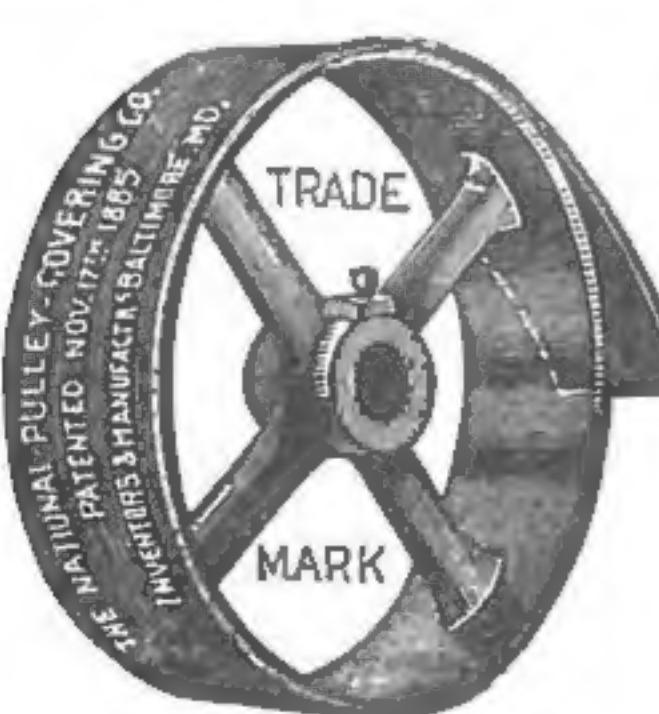
N. B.—All Mill Picks ground and ready for use (bot old and new) before leaving the shop. No time and money lost grinding rough and newly dressed Picks. All come to hand ready for use.

ALSO MANUFACTURERS OF

Shafting, Pulleys, Hangers, Coupling, Machine and Jobbing, Etc., Etc.



WHEN YOU WANT
WIRE CLOTH
SEND TO
Brooklyn Wire Cloth Works,
107 JOHN STREET, NEW YORK.



KEEP YOUR BELTS FROM SLIPPING

And Save Your Power by Using FRICTION COVERING for Pulleys. Agents Wanted. Satisfaction Guaranteed. Easily Applied. No Rivets. Effective.

NATIONAL PULLEY COVERING CO., BALTIMORE, MD.



THE GERMAN REMEDY FOR BURNS.—The celebrated German remedy for burns consists of 15 ounces of the best white glue, broken into small pieces in two pints of water, and allowed to become soft; then dissolve it by means of a water bath, and add 2 ounces of glycerine and 6 drams of carbolic acid; continue the heat until thoroughly dissolved. On cooling, this hardens to an elastic mass, covered with a shining parchment-like skin, and may be kept for any length of time. When required for use it is placed for a few minutes in a water-bath until sufficiently liquid, and applied by means of a broad brush. It forms in about 2 minutes a shining, smooth, flexible and nearly transparent skin.

GENERAL NOTES.

A CHIMNEY has been designed for the Royal Smelting Works, of Saxony, Germany, by Herr Heneicke, that is to be 460 feet high, with an inside diameter of 23 feet at the base and 15 feet 6 inches at the outlet. The works will be connected with the chimney by a horizontal flue 1,093 yards in length, which crosses the river Mulda and takes an upward course of 197 feet to the top of the hill, where the giant chimney will stand as an example of engineering skill. It will take 1,500,000 bricks to build this perpendicular funnel, and its cost is estimated at about \$30,000.

THE "SOO" AND SUEZ CANALS.

The statistics of traffic of the Suez Canal for 1889 form an interesting study by way of comparison with those of the Sault Ste. Marie Canal for the same year and the year preceding. In the matter of vessel passages, St. Mary's Canal is far ahead, as will be seen by the following:

	1888.	1889.
St. Mary's Canal.....	7,803	9,579
Suez Canal.....	3,440	3,426

It will thus be seen that, while the vessel passages through the "Soo" increased 22 per cent. in 1889, those of the Suez actually dropped off. The real test is the tonnage, and here our western Suez shows up very creditably, indeed:

	1888.	1889.
St. Mary's Canal.....	5,130,659	7,221,935
Suez Canal.....	6,640,834	6,783,187

Thus it appears that, while in 1888 our tonnage fell 1,500,000 tons below the Suez, in 1889 we surpassed her magnificent record by 438,748 tons. The significance of this statement will better appear when it is remembered that navigation through St. Mary's Canal is confined to six months, while the Suez is open all the year. It is also worthy of note that, while the Suez showed an increased tonnage in 1889 over 1888 of only 2 per cent., the increase of St. Mary's Canal during the same period was 41 per cent. The average tonnage of the vessels passing through the two canals in 1888 and 1889, respectively, was as follows:

	1888.	1889.
St. Mary's Canal.....	657	741
Suez Canal.....	1,984	1,984

This shows, of course, a larger class of vessels passing through the Suez canal, but it also shows a rapid advance in the size of lake vessels. All the facts obtainable from our ship-yards fully confirm this fact.

COTEMPORARY COMMENT.

There has within the last few weeks been a turn in the tide of the Canadian miller's affairs. For several years past he has been in decidedly hard luck, in fact, well nigh squeezed out of existence. As the result of a determined effort on the part of the Dominion Millers' Association, he again finds his feet on terra firma, and the dejected, hopeless expression which so long served as a mark of recognition is

no longer to be seen on his countenance. A peep into the meeting held in Toronto a month ago revealed the fact that the recent action of the Government has put new life and encouragement into the great Canadian milling industry.—*Toronto, Ont., "Electrical, Mechanical & Milling News."*

The winter-wheat crop of the country still hangs quiet; although while we have had plenty of moisture, we have not had a corresponding improvement. Reports now are on the increase to the effect that the wheat is making a thin stand. This, of course, applies to the crop as a whole, for there are localities where the wheat did not suffer from winter-killing, and if the coming month should be a dry one, we look for a still further general depreciation of winter-wheat prospects. The work of seeding spring crops is now practically ended. The consensus of opinion at this date as to the spring wheat acreage is a decrease as compared with a year ago.—*New York "Produce Exchange Reporter."*

The individual who is most clamorous for the removal of Statistician Dodge, on account of alleged incorrect statistics, publishes the following: "The aggregate weight of cattle received at Chicago this week amounted to nearly 10,000,000 pounds. The valuation was in the neighborhood of \$40,000,000." Senator Vest should make a note of it, that cattle are worth four dollars per pound at Chicago.—*Chicago "Daily Trade Bulletin."*

Another twist has been given the complication of the affairs of the Geo. T. Smith Middlings Purifier Co. by a claim for \$266,000 due as royalties upon some 13,000 machines to the Consolidated Middlings Purifier Co., of which Geo. T. Smith is president and secretary. The bill filed asks for an accounting and an adjustment of the affairs of the two companies.—*Chicago "American Miller."*

It is possible for a good miller in charge of a good mill to atone to some extent for poor stock, but it is not within the possibilities for the good mill and good stock to atone for a poor miller. Observe: In the first instance the stock will be worked to best advantages, cleaned, ground and separated to suit all conditions well understood and percentages of all grades arranged to hold the different products at the highest possible point of perfection. In the second place, poor cleaning, improper grinding and separating will interfere with proper accomplishments. See if the miller attempts to make good flour his offal is ruinous to profits, and if he attempts to make clean offal he ruins the flour.—*St. Louis "Miller."*

The earth is 500,000,000 years old. Some of the jokes going are twice that.—*Chicago "Daily Business."*

COMING EVENTS.

The Northern Missouri Millers' Association will hold a meeting Tuesday, June 10, at Moberly, Mo.

The Millers' National Association will hold a meeting June 17-20, at Minneapolis, Minn.

The Kansas Millers' Association will hold a meeting Thursday and Friday, July 10 and 11, at Newton, Kan.

The State Millers' Association will meet Tuesday, Aug. 12, at Huron, S. D.

The Dominion Millers' Association will hold a meeting at Toronto, Ont., sometime between the 1st and 15th of September.

A NEW METHOD OF TREATING DISEASE.

HOSPITAL REMEDIES.

What are they? There is a new departure in the treatment of disease. It consists in the collection of the specifics used by noted specialists of Europe and America, and bringing them within the reach of all. For instance the treatment pursued by special physicians who treat indigestion, stomach and liver troubles only, was obtained and prepared. The treatment of other physicians, celebrated for curing catarrh was procured, and so on till these incomparable cures now include disease of the lungs, kidneys, female weakness, rheumatism and nervous debility.

This new method of "one remedy for one disease" must appeal to the common sense of all sufferers, many of whom have experienced the ill effects, and thoroughly realize the absurdity of the claims of Patent Medicines which are guaranteed to cure every ill out of a single bottle, and the use of which, as statistics prove, has ruined more stomachs than alcohol. A circular describing these new remedies is sent free on receipt of stamp to pay postage by Hospital Remedy Company, Toronto, Canada, sole proprietors.

PEREJUDICE Investigate the merits of the Reliance Safety Water Columns. It pays to keep posted. Many of the largest corporations have found it profitable to discard the old appliances and adopt these safeguards. There is always economy in safety. Send for illustrated price-list.

Reliance Gauge Co., 831 Sheriff St., Cleveland, Ohio.

THE "HARLOW" Positive Feed Lubricators.

For Marine and Stationary Engines, Steam Pumps, Electrical and other Machinery.

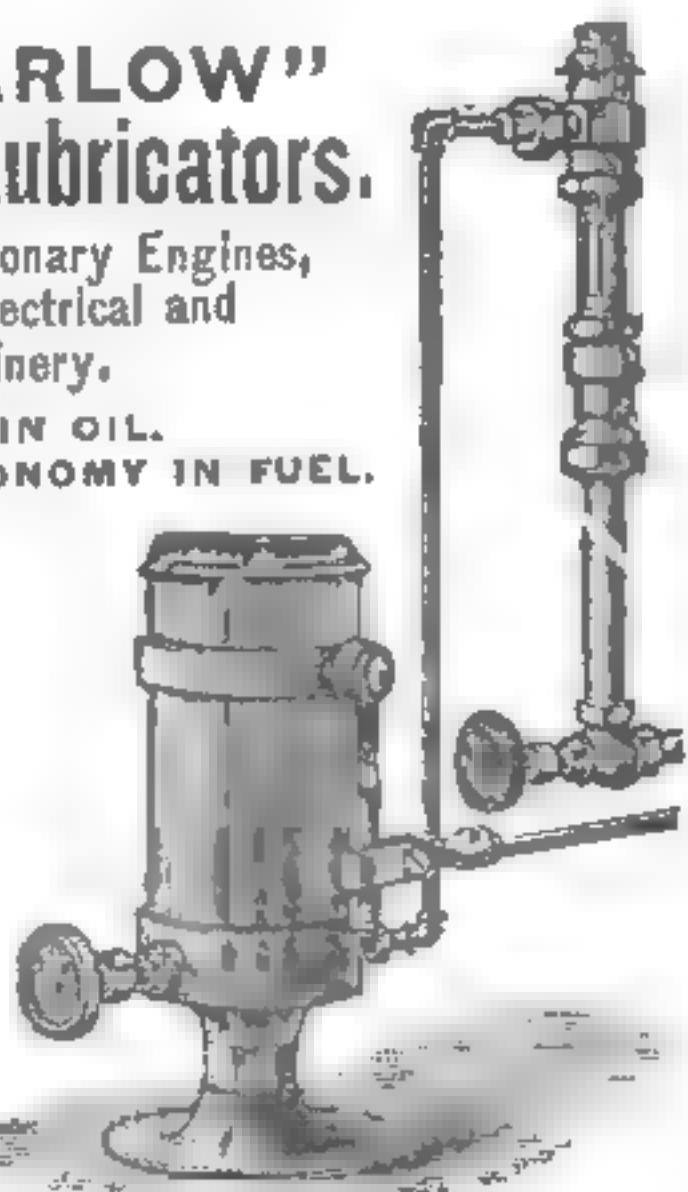
MAXIMUM ECONOMY IN OIL.
MARKED ECONOMY IN FUEL.

Not dependent upon or operated by Steam Pressure, Condensation or Gravity. Not affected by changes of temperature.

BEING operated by some moving portion of the engine or machine to be lubricated, the "Harlow Lubricator" starts and stops with the engine or machine being lubricated, without requiring the slightest attention from the engineer or operator, always delivering the oil in any amount from a drop to a constant stream.

The cup can be filled at any moment while the engine or machine being lubricated is in operation, without causing any leakage either of oil or steam.

Harlow Lubricator Mfg. Co. BOSTON, Mass. U. S. A.

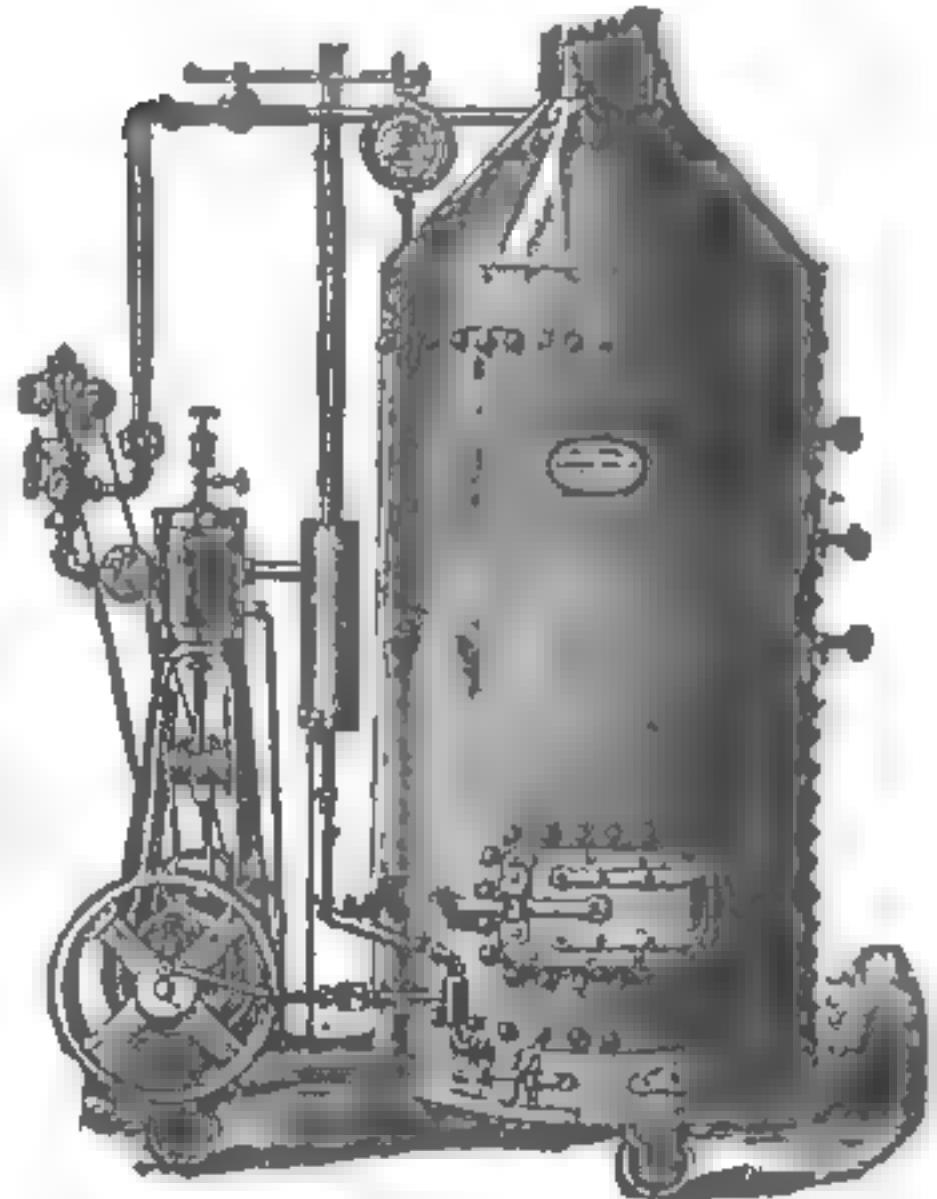


TONAWANDA

ENGINE AND BOILER WORKS

A Large Assortment of Machinery.

The Best 6-Horse Power Semi-Portable Up-right Engine and Boiler Made.

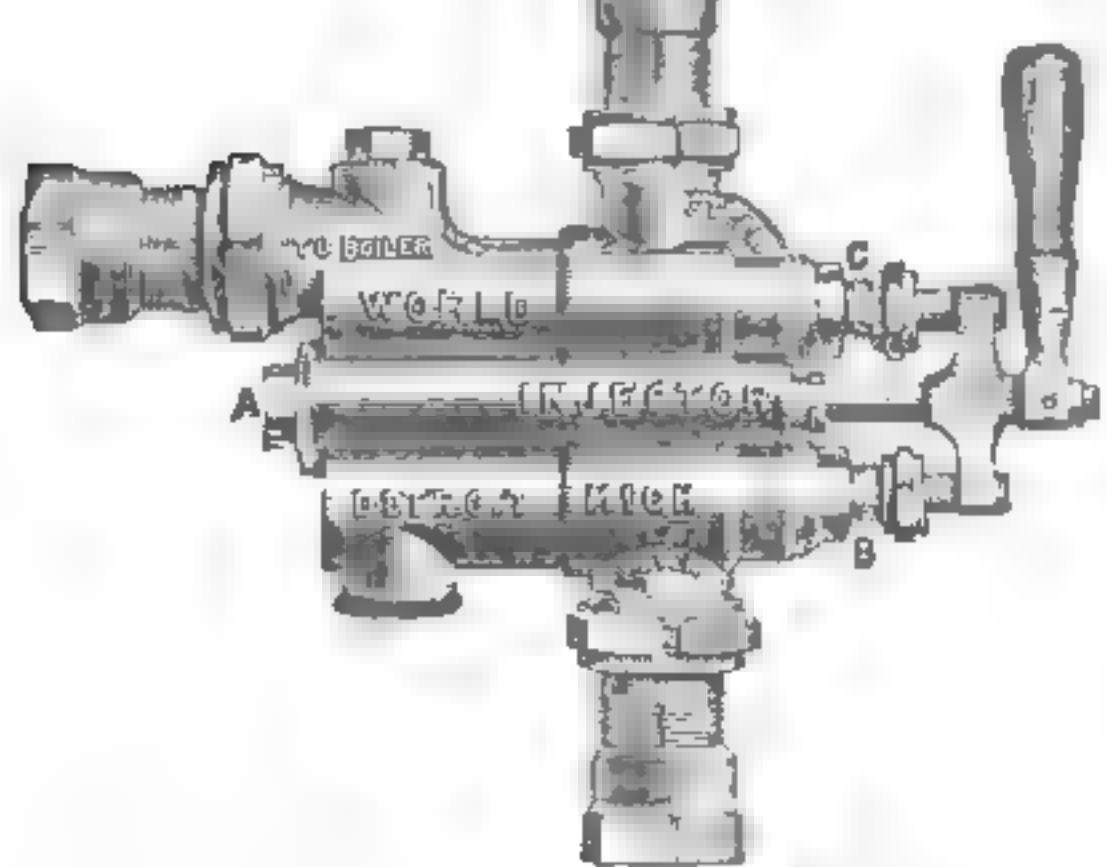


SEND FOR CATALOGUE.

ARMITAGE, HERSCHELL & CO.

Tonawanda N. Y.

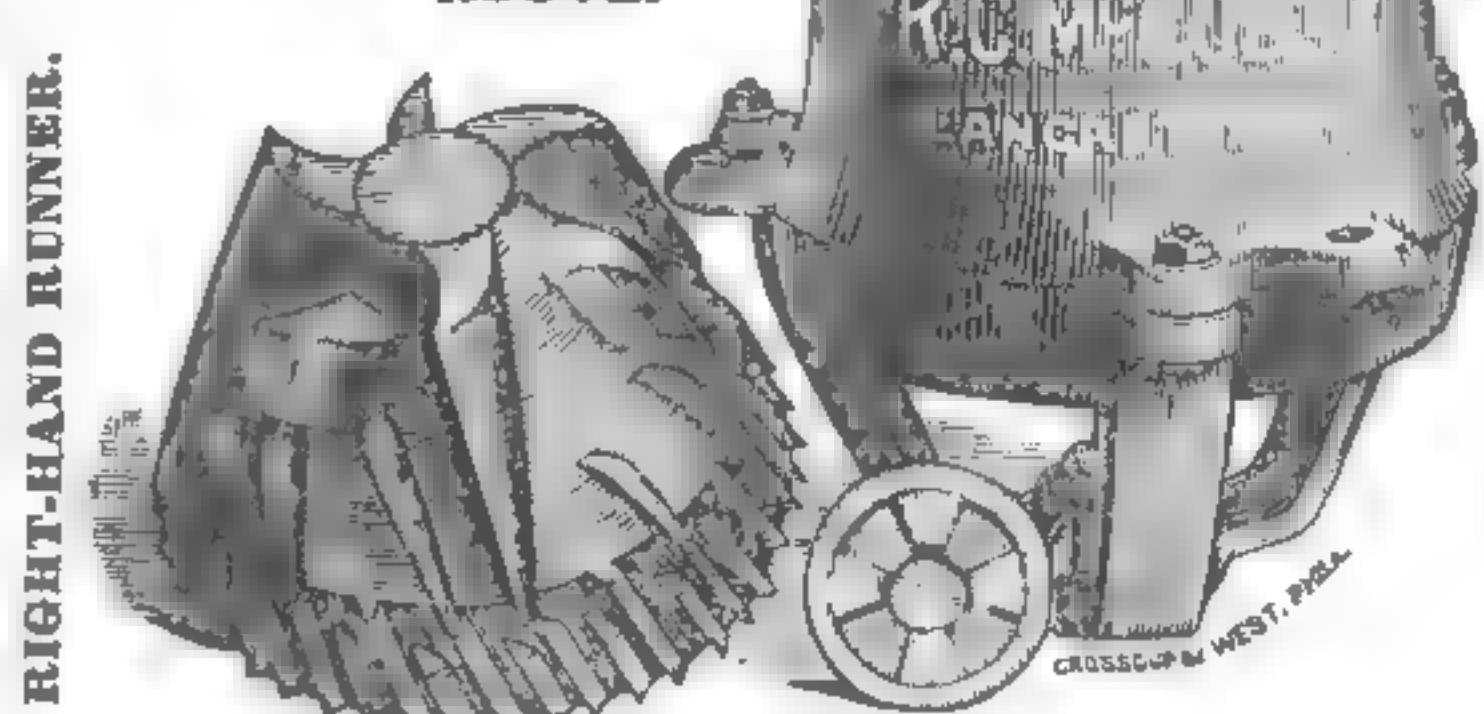
SPECIAL PRICE, GUARANTEED.



THE BEST AND CHEAPEST CORN AND COB CRUSHER IN THE WORLD.

LEFT-HAND
MILL.

DRIVEN
FROM
ABOVE.



RIGHT-HAND RUNNER.

All wearing parts cast of a steel mixture. Notice difference in construction. Most area where most work is done, where all other crushers have least area where most work is done. Low priced machinery is not the cheapest, considering durability and efficiency. Sent on 30 days' trial when satisfactory reference is furnished.

Please Send for Circulars.

R. C. McCULLEY, LANCASTER, PENN.

CORNISH'S (OLD ESTABLISHED) AND RELIABLE) ORGANS AND PIANOS!

THE ONLY FIRM OF MANUFACTURERS IN AMERICA
SELLING DIRECT TO CONSUMER. FROM FACTORY TO FAMILY AT WHOLESALE RATES ON TERMS TO SUIT PURCHASER.

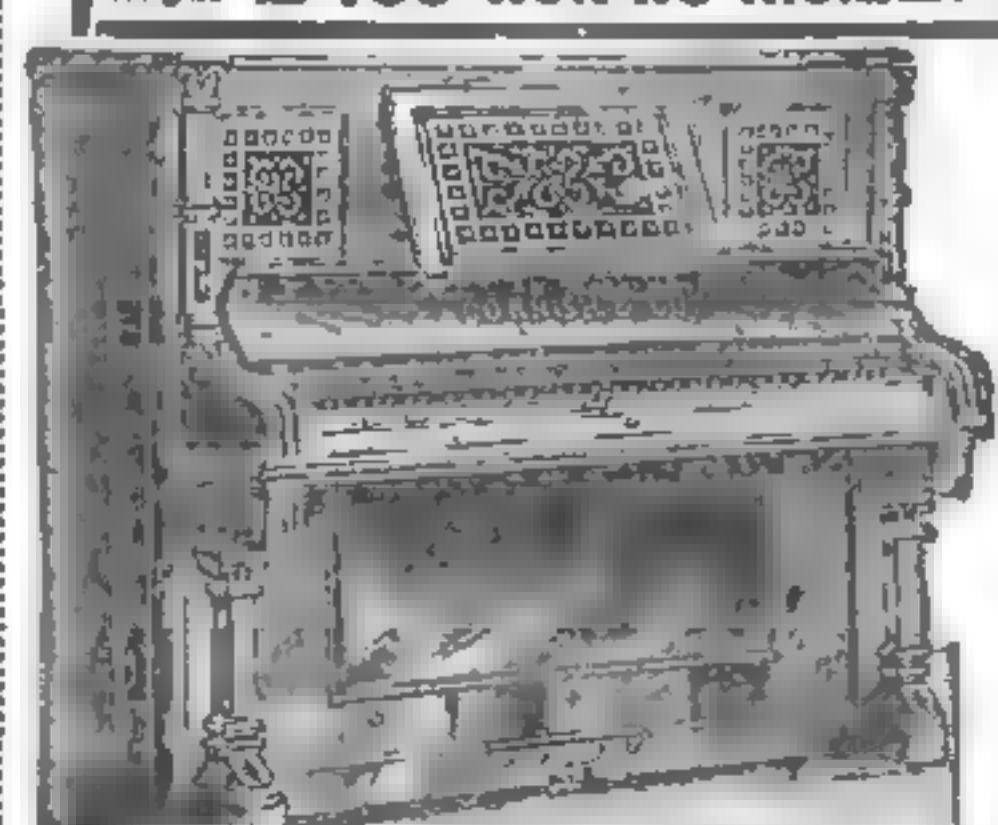
\$75 ORGAN { EXACTLY LIKE THIS CUT } **\$50**
\$15.00 CASH SOLID FOR After ten days' trial, and the balance of price, \$35, to be paid in 7 monthly installments of \$5 each. OR IF CASH IS SENT WITH ORDER, WE WILL SPECIALLY ACCEPT \$45.00.

CORNISH'S Specially designed Cabinet Organ, Style "Canopietta," No. 10,000, contains 3 sets Orchestral toned Resonator Pipe Quality Reeds; 6 Octaves; 10 Solo Stops; 2 Octave Couplers (Bass and Treble); 2 Knee Swells and all late improvements. Dimensions—65 in. high, 48 long, 21 wide.

WARRANTED FOR TEN LONG YEARS.

SOLID WALNUT CASE, HIGHLY FINISHED. Handsome Stool and large Instruction Book, making a Complete Musical outfit.

HOW TO ORDER. Send a reference as to your responsibility from any Banker, Postmaster, Merchant or Express Ag't, and Organ will be shipped at once on Ten Days' Test Trial, and if not, after trial, satisfactory, you can return it and we will pay freight charges both ways. **IF YOU RUN NO RISK.**



REFERENCES.—FIRST NATIONAL BANK, WASHINGTON N. J., any Commercial Agency in the U. S., and thousands of persons who for the last 20 years have purchased instruments of our manufacture.

CORNISH'S GRAND, SQUARE AND UPRIGHT PIANOS

Magnificent New Designs, finest materials, wholesale prices, upon terms to suit all purchasers. Shipped to any part of the civilized world, on free test trial. **NO MONEY REQUIRED UNTIL YOU ARE SATISFIED.**

We want every reader of this paper to WRITE TO-DAY for our 20 pp. Illustrated Catalogue. YOU CAN SAVE MONEY. WRITE whether you want to buy now or not. Our Catalogue will interest you and you can get it for nothing.

Address: CORNISH & CO. (OLD ESTABLISHED) WASHINGTON, AND RELIABLE, NEW JERSEY.

THE Best is the Cheapest. Whenever you want a Boiler Feeder that will prove reliable under all circumstances, buy the **WORLD** Injector. It is absolutely the simplest and safest to operate and handle of any injector now on the market, **FOR** it is operated by a single lever only. In whatever territory you find these reliable World Injectors on **SALE** they are always guaranteed by the seller.

GOLD is good in whatever part of the world you may travel, and the "**WORLD**" Injector is worth every **DOLLAR** it will cost you. Catalogue containing Price List, valuable tables, and useful facts, figures and information **SENT** to engineers, machinists, and all interested in a perfect working injector, post-paid, upon application, **FREE**

AMERICAN INJECTOR COMPANY,

175 Larned Street West, DETROIT, MICH.



Colorado, Tex., men started a grist-mill.
 M. W. Smart, Anacoco, La., builds a grist-mill.
 J. H. Bagley, Bickley, Ga., projects a grist-mill.
 J. H. Hall & Co., millers, North Conway, N. H., failed.
 F. M. Kennedy & Co., Martin, Tenn., remodel flour-mill.
 J. H. Koogler & Sons' mill, DeGraff, O., damaged by fire.
 W. J. Myers & Bro., Princeton, Ky., will start a flour-mill.
 T. B. Graham, Graham, Va., builds a 25-barrel flouring-mill.
 R. J. Morgan, Memphis, Tenn., has points on a grain-elevator.
 I. Groff, miller, Millersville, Pa., is succeeded by A. W. Groff & Bro.
 Jacob Weber, miller, Cleveland, O., lost \$10,000 by fire; fully insured.
 Clarke & Crook, Memphis, Tenn., have built a 400-barrel corn-meal mill.
 Brown & Sons, Stevenson, Ala., want machinery for a new flour and corn mill.
 F. I. Lewis, Frederick, Md., remodels his "Jumbo Buhr Mills" at Lewis Station to rolls.
 S. Blue's flour-mill, Pottsgrove, Pa., burned with other property; loss \$5,000; insured.
 The Tarbell Lumber Co., Southern Pines, N. C., want machinery for a projected grist-mill.
 W. C. Pipkin's grist-mill, Hatchie, Tenn., burned; loss \$3,800; insurance \$2,500; fire incendiary.
 Smith, Taylor & Co., Cave, Tenn., want an outfit of machinery for a short-system roller flour-mill.
 W. A. Wilkins, Waynesboro, Ga., forms a stock company to build a grist-mill; machinery is wanted.
 Plano, Tex., men have formed a flour-mill and grain-elevator company; they build and want machinery.
 The Panhandle Milling & Elevator Co., Wichita Falls, Tex., are building a 500-barrel flouring-mill and a 300,000-bushel grain elevator.
 The Farmers' Laborers' Union, Goodlettsville, Tenn., will form a stock company to build a 50-barrel roller flouring-mill; machinery is wanted; they will run a grist-mill also; address J. A. Pilkinton, secretary of the union.
 It is reported that W. E. Lee, of Long Prairie, Minn., who recently got a verdict against a Minneapolis miller for \$1,500 damages for using cleaners which he claims to be an infringement of his patent, will bring actions against Geo. Tileston, H. C. Waite, Frank Arnold and others of St. Cloud, Minn., and vicinity.
 The National Pulley Covering Co., of Baltimore, Md., have recently received the following communication in regard to their "Patent Friction Covering" for pulleys from the Boone Mill Co., of Greenwood, Florida, which needs no comment. "The National Pulley Covering Co., Baltimore, Md. Gentlemen: The covering bought of you in August last gives entire satisfaction, and we would not be without it on pulleys. Each cover will pay for itself in one day's run. It saves power, wood and labor and does everything that you claim for it. We expect to send you more orders, as every one who uses it likes it."

Says the Jamestown *Daily Alert*: The advent of the United States irrigation committee into North Dakota will create renewed interest in the irrigation question. This commission will solve the problem for us. If they find that the supply is such that constant flowage from innumerable wells will not exhaust or diminish the supply, then the future of the Northwest is assured, for right there hinges the practicability of irrigation by this method. The James River valley artesian basin is acknowledged to be the greatest in the world, and it is believed and hoped that our subterranean supply will be found as constant and inexhaustible as that in artesian basins of less magnitude.

A Missouri farmer with a turn for statistics has furnished a communication on the subject of official salaries, in which he states that an official who receives \$4,000 per year salary absorbs the price of 26,666 bushels of corn at 15 cents per bushel, or 6,666 bushels of wheat at 60 cents per bushel, or 33,333 bushels of oats at 12 cents, or the price of 50 good farm horses. He also estimates that a farm hand at \$13 per month would have to work the year around for a quarter of a century to earn the same amount, and adds that in 1866-7-8 about 5,000 to 8,000 bushels of corn would have footed the bill, or 3,000 bushels of wheat.

Says the Kansas City *Times*: "The people of any other State than Kansas would be discouraged with the prospect before them that the State has now. It has nearly 200,000,000 bushels of corn in the cribs, 20,000,000 bushels of wheat on hand, has a harvest ahead, and not very far ahead, either, that will bring in about 50,000,000 bushels more of wheat with any kind of luck, while if the corn yields half a crop they will have about 300,000,000 bushels more of that to take care of. Add to this the fact that school, district, township, county and state officers are to be elected, and one can begin to form some idea of the magnitude of the work Kansans have to do this year. And the work will all be finished by Dec. 1, too."

A Nashville, Tenn., report dated April 28 says: A syndicate composed of New York and local capitalists has purchased the American, Nashville and Lanier Flouting Mills, in this city, for \$600,000, and will take charge June 1. The product of these mills, 2,500 barrels per day, will be doubled. A stock company will be organized by the purchasers, prominent among whom, it is reported, is John H. Inman, of New York. The capital will be increased, and the mills supplied with the latest improved machinery. There is no British money in the purchase, and the negotiations, which were conducted by Mr. Geo. A. Dazey, of this city, were concluded only to-day. They have been in progress for some weeks.

BOOKS AND PAMPHLETS.

Good Housekeeping for May 10 opens a new volume and admirably sustains the reputation of this model household magazine. An extended paper on "Afternoon Tea," by Anna Sawyer, gives much information and suggestion regarding this pleasant social custom; there is a very helpful article on Draperies; "Sickroom Comforts and Conveniences" are treated by Rachel Macy; Martha B. Tausig tells of a "Pantry Emergency Shelf," and Edward Atkinson describes some interesting experiments and results with a "Bread-Raiser." The usual departments of "Crumbs," "Notable Nothings," "Quiet Hours" and "Cozy Corner," furnish something to interest every member of the household. Clark W. Bryan & Co., Springfield, Mass., are the publishers.

Every business man in the United States ought to have a copy of that remarkable book "Twenty-Eight Years in Wall Street," by Henry Clews, the well-known banker. This book opens many secrets connected with business and business men in the metropolis of the United States, and it is a most valuable history of events in the money-center of the Republic. Mr. Clews writes in a philosophic vein, and his book ranks in importance with the best financial writing of the century. Probably no other man could tell so much, or tell so well, about Wall street and its scenes during the past quarter of a century. The volume contains over 700 pages, and every person desirous of knowing something about the inner workings of Wall street can learn it in this book. The publishers are the Irving Publishing Co., 15 Broad street, New York, N. Y. Address them for prices.

Every manufacturer and every business man in the country ought to have a copy of "Parvin's List of Mechanical, Trade and Industrial Papers," published by S. H. Parvin's Sons, 132 to 136 Vine street, Cincinnati, Ohio. This valuable directory includes the names, circulation, size and description of all the leading journals in each important line, and manufacturers of milling, wood-working, iron-working, building, carriage and wagon making, gas and electrical, furniture-making, harness and saddlery making machinery will find it a good list to have in making out their advertising business. The publishers pay especial attention to trade-journalism, and they can give "value received" in every deal. Send to them for copies of their list.



W.A.BINGHAM,
 MANUFACTURER OF
FLOUR SACKS.

178 Duane Street,
 New York, MILLERS' FLOUR SACKS A SPECIALTY.



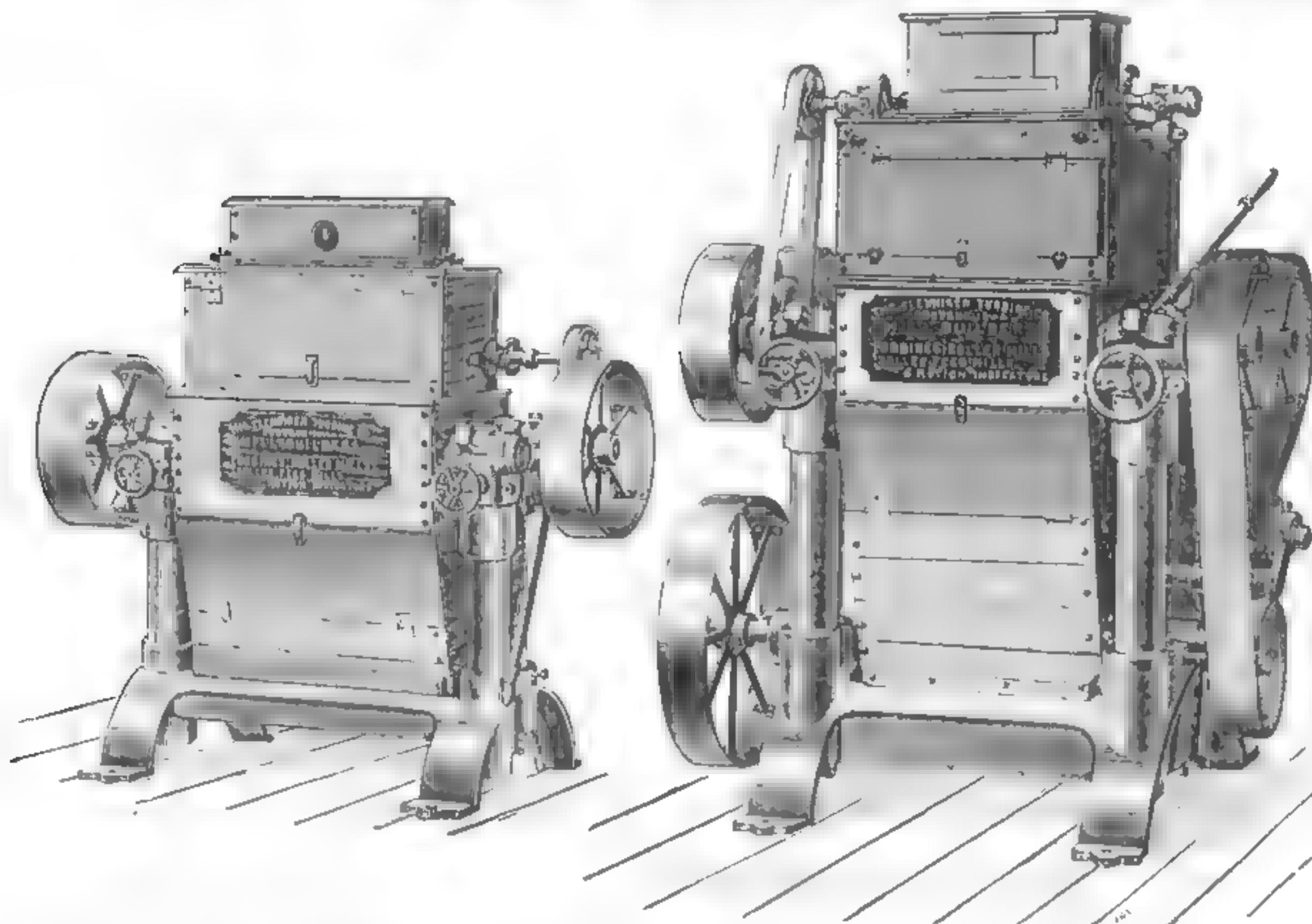
THE PATRONAGE of the MILLING TRADE is MOST RESPECTFULLY SOLICITED.

ONE REDUCTION TO THE FRONT!

*Ye jolly millers, one and all,
Who granulate with burrs,*

A Moses has Come to Deliver You from Egypt. Cease Trying to Make Bricks without Straw. The Red Sea of Expense Has Been Divided.

**The Wilderness of Reductions has Been Shortened. There is Manna in Abundance for Those Who Believe.
Listen to the Glad Tidings of Great Joy!**



ONE REDUCTION ON ROLLS IS A SUCCESS! Two years of experience in a dozen States, with all kinds of Wheat and diversified climates, has justified us in recommending its adoption in place of burrs in each and every case, whether for grinding Wheat, Rye or Buckwheat. We have perfected Roller Mills, Bolts and Scalpers peculiarly adapted to the wants of Small Mills, and all our machines *infringe no patents*, and no claims are made that they do.

Having consummated a bargain with MR. O. C. RITTER, the author and patentee of One Reduction, which gives us the *exclusive right* to construct mills under his patents, our patrons in the future will receive a license from Mr. Ritter.

SPECIALTIES!

Graham Roller Mills, Round Reels and Scalpers, Sectional Round Reels, Grain Separators, Motion Indicators. Before buying any of these machines send for our prices and descriptive circulars.

SPECIALTIES!

Second-Hand Machinery, and Bargains in Every Line.

SEND FOR CATALOGUE OF

The Best Turbines!

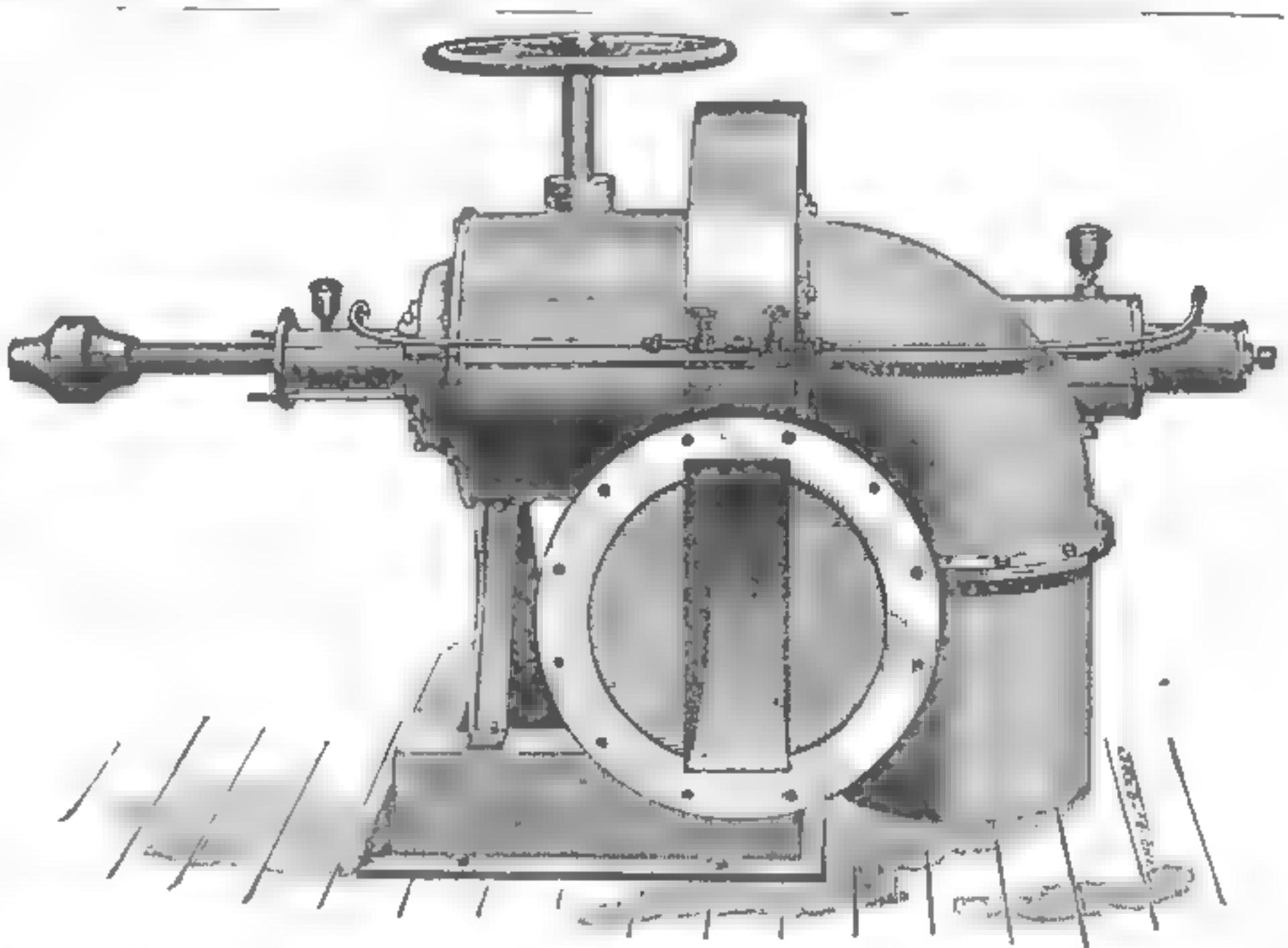
VERTICAL OR HORIZONTAL,

With or Without Iron Flumes,

—BUILT BY THE—

Fleniken Turbine Co.

DUBUQUE, - IOWA.



EUROPEAN ECHOES.

In order to avoid the loss to the Italian national exchequer accruing from the temporary importation of soft grain not employed in the manufacture of flour pastes and semolina, temporary importation is limited by a new decree to hard grain.

The Government of Portugal will make an inquiry concerning the quantity of flour stored in the mills and depots on the 31st day of August of this year, and permission is not to be granted for the sale for public consumption of a larger quantity of flour from any mill than that which can be produced therein in the ordinary course of work during a month, unless, in regard to the remaining part of such flour, it is proved that native wheat has been purchased in the proportion of 260 kilos of wheat to 100 kilos of flour.

SAYS the London "Millers' Gazette" of April 21: "The House of Commons again declared itself, on Friday evening, in favor of mono-metallism and would not even vote for an international conference on the subject of bi-metallism proposed by Mr. S. Smith. The argument of the opponents of bi-metallism appears to be that the decline in the price of silver has less to do with the general depression than over-production. Few of those who discuss this question in the abstract probably know that if, for instance, the Indian rupee were at its par value of 24d. instead of being 17½d. as it now is, the price of Indian wheat would have to be raised 37 per cent., if the Indian grower were to receive the same value for his products as he does to-day."

SAYS the London "Miller" of April 21: "A north-easterly week, with cold waves flowing over Russia and mid-Europe, has made a winterly time and retarded vegetation. Possibly this cold beginning of April will harden the wheat plant, but it also has had a starving effect upon less hardy plants and kept the season backward, as the direction of the winds has kept back many grain-laden ships. However, it may be said that recent weather influences have not had force enough to affect the markets, on which such changes as have occurred must be ascribed to the situation of supply and demand. Millers have shown a disposition to replenish their small stocks of wheat at old prices, but do not buy freely at any advance. For cargoes value has become rather more than it was a week ago. Maize has given an example to wheat. * * * * Contrary advices from Russia, good reports from the center and east of mid-Europe, as to harvest prospects, have kept the markets quiet. In France as in England recent trade has been towards improved rates, without being accentuated in its tendency upwards as in America. In the immediate future general firmness is promised on the grain markets, nor does it seem likely American exports of flour can be heavier than can be absorbed."

SAYS the London "Millers' Gazette" of April 28: The condition of the crops in Russia is reported to have been improved by the late rains, but in some districts the winter crop is reported to be looking badly. Stocks in the interior are getting very low and advices from Odessa state that the further shipments this season must be restricted; stocks at Odessa on the 1st to the 13th were reduced to 224,500 quarters, against 809,000 quarters a year ago. The shipments from Russia have at length fallen off, the official figures for the week ended 12th inst. being 149,126 quarters, but this included 93,000 quarters shipped from Odessa, Eupatoria and Marianople in the previous week. * * * * There is no fresh news from Australia or the Argentine Republic, in both of which countries the harvest has turned out to be quite below the exceedingly favorable early expectations. Chilian reports state that prices in Europe are quiet too low to admit of business, and that there is an unusual absence of available tonnage. * * * * The great raise in the price of silver, notwithstanding the resent slight reaction, is still as eagerly watched in the grain markets as in the

Stock Exchange. This raise is probably entirely due to the proposed legislation on the subject in the United States, and it is quite ten years since there has been such a sudden raise in the price of silver.

IRRIGATION IN DAKOTA.

Professor Culver, of the Dakota university, has been making a calculation of the amount of water that will be needed to make productive the irrigable lands of Dakota. His figures of amount of water to a given rain-fall are of interest. He finds that: One inch of rain-fall gives 860 barrels to the acre. One inch of rain-fall gives 550,400 barrels to the section. One inch of rain-fall gives 19,814,000 barrels to the township. The average rain-fall of the Missouri valley is about 25 inches, probably a little more in the region under discussion. Multiplying the number in the above table by 20 we have the following results: Twenty inches of rain-fall give 17,200 barrels to the acre. Twenty inches of rain-fall give 1,100,800 barrels to the section. Twenty inches of rain-fall give 39,628,800 barrels to the township. Suppose it is desirable to double this amount by means of wells, and suppose a well flowing 100 barrels a minute be taken as a standard. Such a well furnishes: One-hundred barrels a minute, 6,000 barrels an hour, 144,000 barrels per day, 52,560,000 barrels per year. Making the division, we find that it would require seven such wells in each township, provided that all the water is used in the township, none escaping to the lower levels. It is not probable that this latter would be true. Nor is it believed that it would be necessary to double the present rain-fall. One-half that amount under control would be ample.

AN INTERESTING PROGRAMME.

Following are the programmes of exercises and discussion to be followed at the Tri-State Millers' Convention, in Fort Wayne, Ind., on May 13th and 14th. The programme of exercises is as follows:

FIRST DAY.—Morning—Reception of Visitors by Local Committees. Afternoon—Conventions of State Associations in Parlors of Hotels. Evening—To be supplied.

SECOND DAY.—Morning—Assembling of Tri-State Convention in Princess Rink at 9 o'clock. Business Session until 12 m. Adjournment until 1:30 p. m. Afternoon—Convention assembles at 1:30 p. m. Session continues until 5 p. m. View of City starting from Rink at 5:15 p. m. Evening—Banquet.

The programme of discussion is as follows:

1.—Organization.—Argument: a. National Organization. b. Interstate Organization in Reference to Identical Conditions of Wheat Milling and Shipping. c. State and Local Organization. d. Large and Small Mills; Their Relation to Each Other and to the Market.

2.—The Miller as a Wheat Buyer.—Argument: a. Official Inspection and Uniformity of Grades. b. Relation to the Farmer. c. The use of the Tester and the grades to be Represented by It.

3.—The Best Milling Wheat for This Section.—Argument: a. Action Necessary to Introduce and Encourage its Growth.

4.—Methods of Selling.—Argument: a. The Broker and the Dealer. b. Should the Associations Establish Their Own Agencies?

5.—From Mill to Market.—Argument: a. The Interstate Commerce Law; Does it Meet Our Requirements? b. A Satisfactory Export Bill of Lading.

6.—National Legislation in Its Relation to the Milling Business.—Argument: a. Should Millers' Organizations "Take a Hand" in Politics on Similar Basis as proposed by Trades Unions and Farmers' Alliances?

CATARRH.

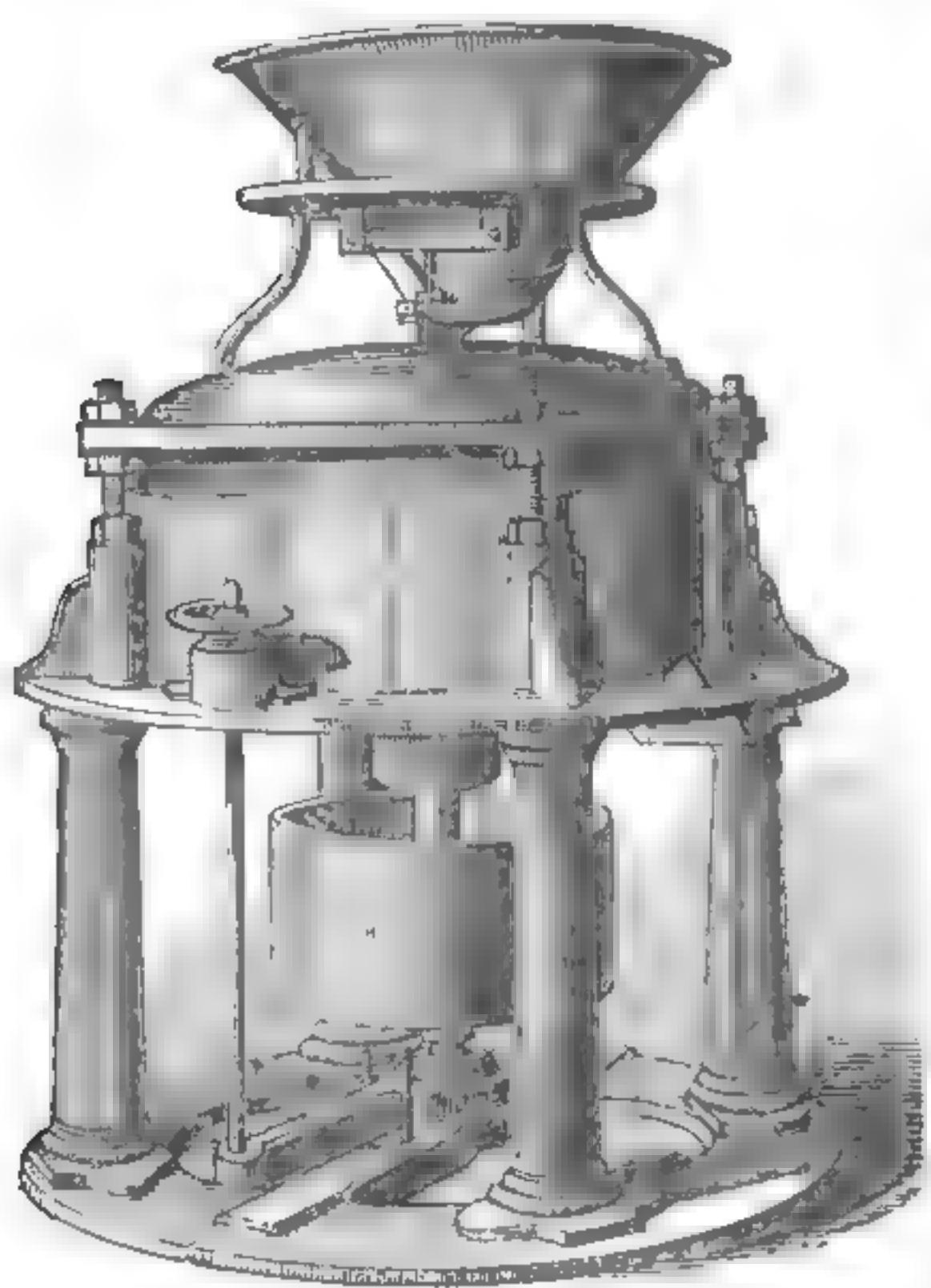
CATARRHAL DEAFNESS—HAY FEVER.

A NEW HOME TREATMENT.

Sufferers are not generally aware that these diseases are contagious, or that they are due to the presence of living parasites in the lining membrane of the nose and eustachian tubes. Microscopic research, however, has proved this to be a fact, and the result of this discovery is that a simple remedy has been formulated whereby catarrh, catarrhal deafness and hay fever are permanently cured in from one to three simple applications made at home by the patient once in two weeks.

N. B.—This treatment is not a snuff or an ointment; both have been discarded by reputable physicians as injurious. A pamphlet explaining this new treatment is sent free on receipt of stamp to pay postage, by A. H. Dixon & Son, 337 and 339 West King street, Toronto, Canada.—*Christian Advocate*.

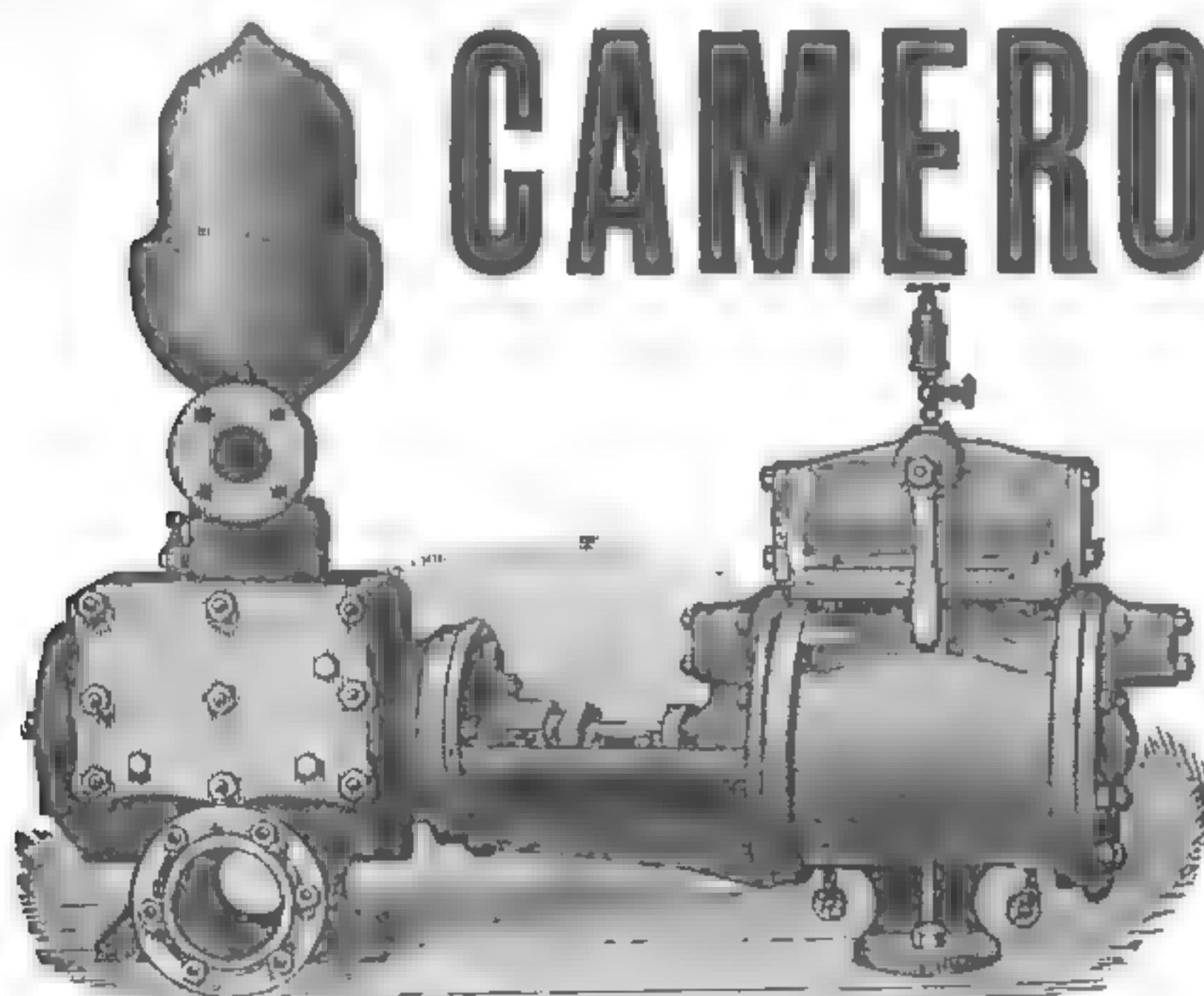
Sufferers from Catarrhal troubles should carefully read the above.



MUNSON BROS., UTICA, N. Y.,
—MANUFACTURERS OF—
PORTABLE MILLS
FOR CORN AND FEED GRINDING,
—WITH—
FRENCH BUHR and ESOPUS STONES

Shafting, Pulleys, Hangers, Etc., and General
Mill Furnishings.

SEND FOR CATALOGUE AND PRICE LIST.



CAMERON STEAM PUMP

THE STANDARD OF EXCELLENCE.

SIMPLE! COMPACT! DURABLE!
"NO OUTSIDE VALVE GEAR."

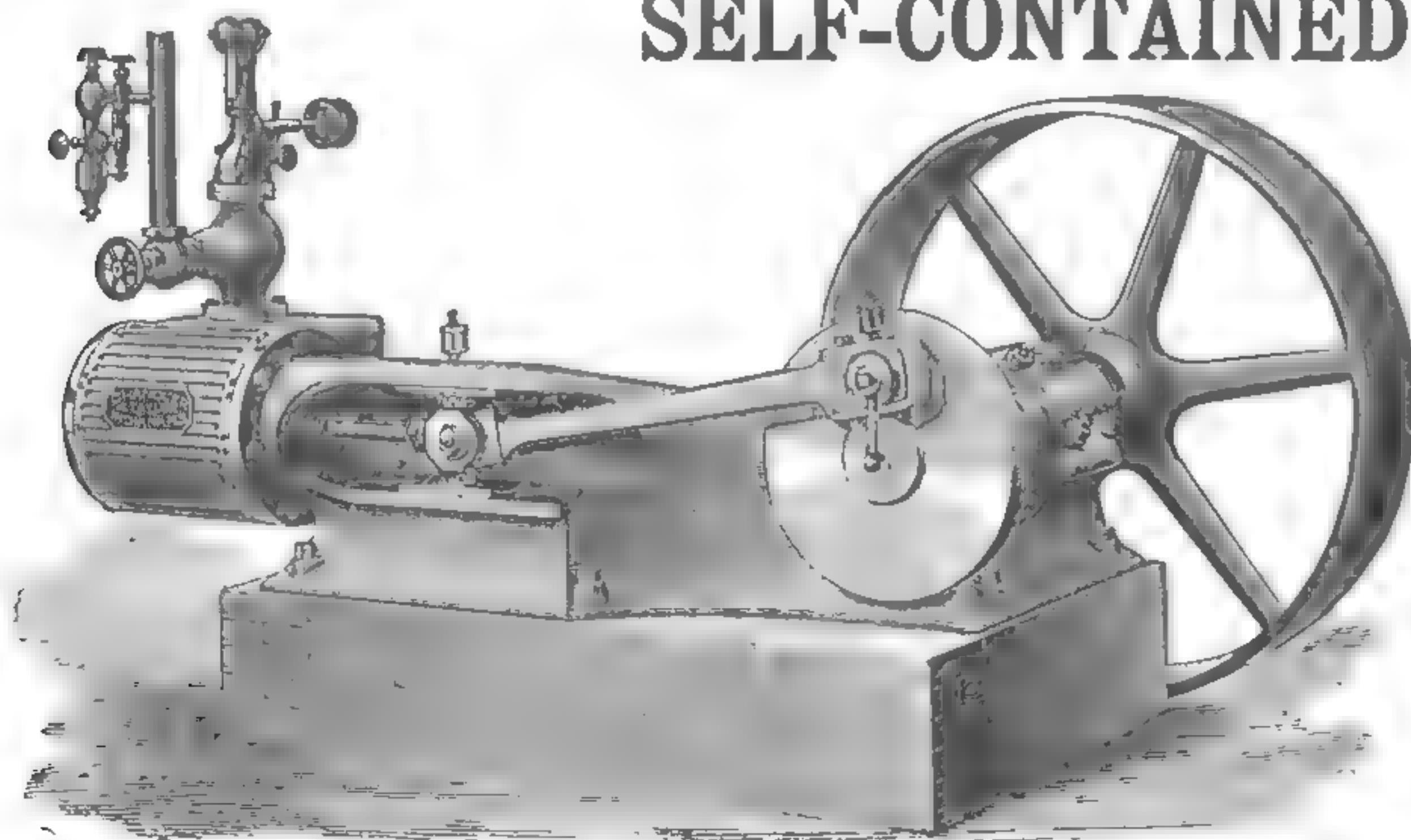
Steam, Air & Vacuum Pumps in Every Variety

FOR ILLUSTRATED CATALOGUE ADDRESS

The A.S. Cameron Steam Pump Works

Foot of East 23d Street. .. New York.

SELF-CONTAINED STEAM ENGINES
Stationary or
Semi-Portable.



High Standard Maintained.
Prices Greatly Reduced.

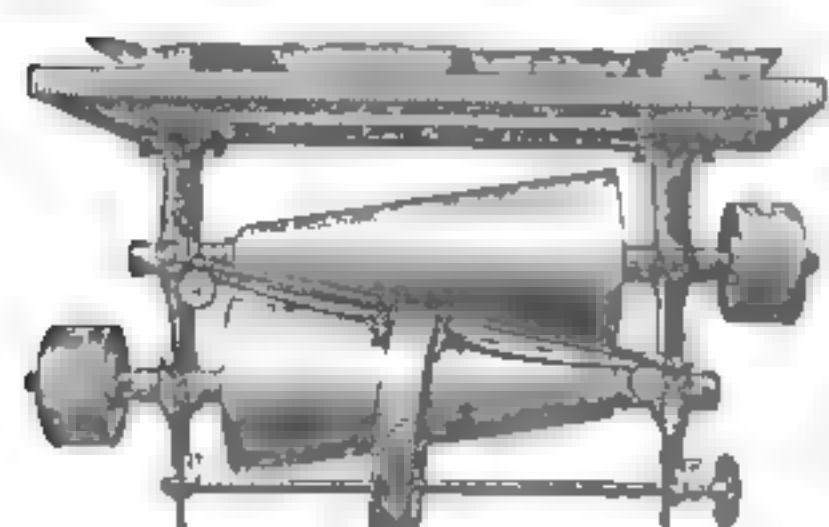
*WRITE FOR NEW ILLUSTRATED
CATALOGUE NO. 32.*

Chandler & Taylor Co.,
Indianapolis, Ind.

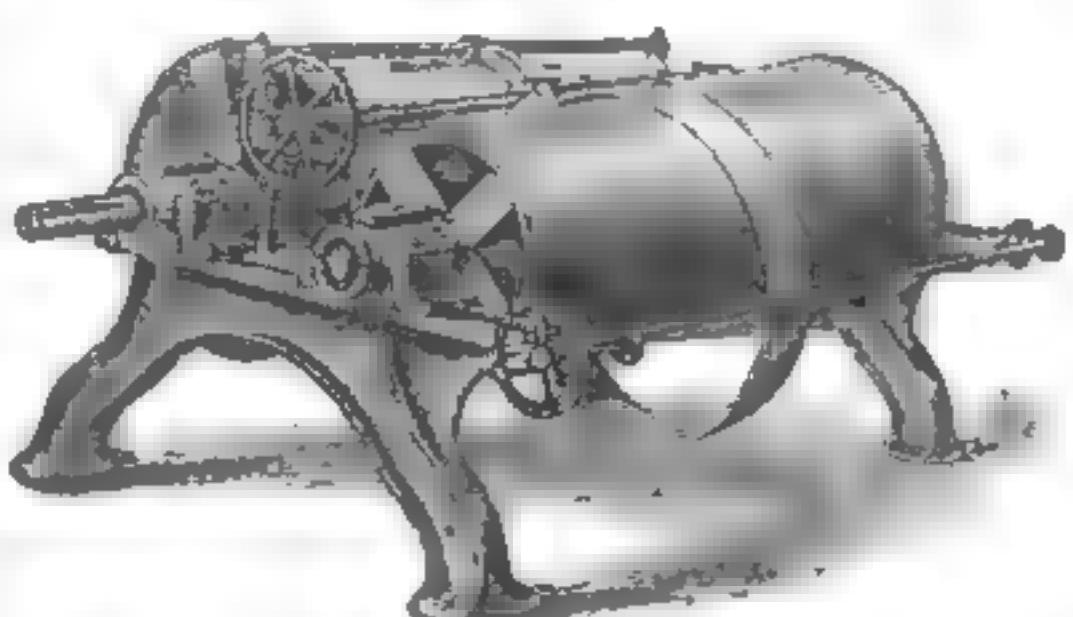
Engines, Saw-Mills and Drain Tile
Machinery a Specialty.

THE EVANS FRICTION CONE & FRICTIONAL GEARING

"PATENTED."



This cut represents a set of hanging cone pulleys. This pattern is intended for that class of machinery that stops and starts at the same speed, and at the same time be able to change the speed more or less while running. These cones are also fitted with a governor where a steady motion is required and the initial power is fluctuating. All sizes made from $\frac{1}{2}$ Horse Power to 50 Horse Power. SEND FOR ILLUSTRATED CATALOGUE.



SHIPPERS

*CAN SAVE TIME
TROUBLE
AND CASH*



EVANS FRICTION CONE CO., 85 Water St., BOSTON.

THE GRAIN & FLOUR TRADE

OFFICE OF THE MILLING WORLD,
BUFFALO, N. Y., May 10, 1890.

Friday of last week saw active, excited and unsettled markets, with wheat in New York sailing right up to the extreme edge of the "dollar notch." In New York May wheat closed at 99½c., and June at 97½c., with Atlantic port receipts 83,112, exports 71,785, and options 7,144,000 bushels. May corn closed at 41½c., with receipts 193,872, exports 245,183, and options 1,800,000 bushels. May oats closed at 32½c., with receipts 203,610, exports 138,609, and options 1,000,000 bushels. Wheat flour was firm at the 10-cent advance of Thursday, with smaller demand. Receipts were 9,011 sacks and 22,007 barrels, and exports 30,867 sacks and 27,102 barrels. The minor lines were quiet, but strong.

Saturday was a "boom" day for the bulls. The bears were panicked on bad crop reports, bad weather reports and shrewd bull manipulation. Wheat scored and passed the "dollar notch," both in New York and Chicago. In New York May wheat sold up to \$1.02 and closed at \$1.01½, and June closed at \$1. Receipts were 24,164, exports 87,604, and options 5,880,000 bushels. Hutchinson led the dance in the Chicago market on wheat. May corn sold up to 42½c and closed at 41½c. Receipts were 250,307, exports 634,851, and options 2,120,000 bushels. May oats closed at 32½c., after selling up to 33c. Receipts were 238,801, exports 69,419, and options 520,000 bushels. Wheat flour shot up 25c. higher on most grades, and 10@20c. higher on everything, and buyers came in and gave 10@15c. advance on all but grades below No. 2 winters, superfines and fines. Receipts were 7,600 sacks and 22,247 barrels, and exports were 29,939 sacks and 4,275 barrels. All the minor lines were firmer and more active.

Monday was a day of active, excited and unsettled markets, with heavy realizing, but wheat in New York remained above the "dollar notch," reaching \$1.02½ and closing at \$1.00%. Sunday reports told of snowstorms throughout the Northwest, while the winter-wheat bulletins indicated some improvement. Receipts of wheat were 88,789, exports 8,665, and options 9,160,000 bushels. June wheat closed at 99c., and July at 97½c. As wheat goes higher the dealers are changing to the bull side more and more. May corn closed at 42½c., with receipts 259,057, exports 389,240, and options 1,800,000 bushels. May oats closed at 32½c., with receipts 233,436, exports 39,169, and options 560,000 bushels. Wheat flour was very excited with wheat, and millers' limits were advanced 10@25c. again, bringing fancy spring patents up to \$5.90@6.00. Receipts included 4,142 sacks and 31,843 barrels, and exports 3,515 sacks and 26,143 barrels. The minor lines were generally firmer. The visible supply in the United States and Canada was:

	1890.	1889.	1888.
	May 3.	May 4.	May 5.
Wheat.....	23,456,599	25,270,734	31,317,380
Corn.....	12,689,735	12,113,861	9,436,671
Oats.....	3,734,165	7,143,138	4,082,012
Rye.....	990,524	1,430,228	259,284
Barley.....	830,767	735,038	749,418

Tuesday brought duller and easier markets, on absence of export demand, on selling by longs and a general lack of bull courage. May wheat closed at \$1.00%, with receipts 77,675, exports 56,770, and options 3,480,000 bushels. The trade was generally scalping in character. May corn closed at 42½c., with receipts 317,576, exports 174,911, and options 1,250,000 bushels. May oats closed at 32½c., with receipts 224,629, exports 33,451, and options 500,000 bushels. Wheat flour was unchanged, with the late advance still asked, but buyers paid it only where compelled to, and those who had stocks refused to do any trade at the advance. Exporters were out. Receipts

included 9,875 sacks and 33,350 barrels, and exports were 15,155 sacks and 1,785 barrels. The other lines were featureless generally.

The following shows the amount of wheat and flour together with the amount of corn on passage to United Kingdom, for ports of call or direct ports for the weeks mentioned:

	1890.	1889.
	May 6.	May 7.
Wheat and flour, qrs....	2,552,000	1,781,000
Corn, qrs.....	739,000	227,000

The following shows the amount of wheat and corn on passage to the Continent for the past week and for the same week last year:

	1890.	1889.
	May 6.	May 7.
Wheat, qrs.....	724,000	315,000
Corn, qrs.....	501,000	203,000
		Qrs.
Shipments India wheat to U. K.....		50,000
do do Continent..		20,000

The imports into the United Kingdom for the past week, the previous week and for the same week in previous year were as follows:

	1890.	1890.	1889.
	May 6.	April 29.	May 7.
Wheat, qrs	273,000	348,000	178,000
Corn, qrs.....	239,000	125,000	274,000
Flour, bbls.....	206,000	235,000	196,000

Wednesday brought a general slump, excepting in oats, on better weather reports and general realizing. May wheat closed at 98½c., with receipts 68,605, exports 82,990, and options 4,450,000 bushels. Hutchinson's doings in Chicago caused a good deal of rumor and uneasiness. May corn closed at 41½c., with receipts 329,748, exports 389,664, and options 1,520,000 bushels. May oats closed at 32½c., with receipts 271,286, exports 43,471, and options 600,000 bushels. Rye grain was nominally firm at 59@60c. for No. 2, at 61c. for No. 1, and 59@60c. for Canada, and 57@59c. for car-lots on track. Barley was nominally 65@66c. for extra No. 2 Canada, and 68c. for No. 1 Canada. Malt was steady and in fair demand at 85@90c. for city-made Canada, 75@78c. for country-made Canada, 75@78c. for 6-rowed, and 68@70 for 2-rowed. Mill-feed was dull at 85c. for all kinds. Wheat flour was duller and easier to sell, on the break in wheat, and western millers were asking for bids at figures refused on Tuesday. Receipts were 6,460 sacks and 30,175 barrels, and exports were 17,863 sacks and 14,299 barrel.

Thursday brought slight firmness in wheat, on frost reports in the various States. Spot wheat went up 1½c., and May wheat closed up at 99½c., with receipts 130,000, exports 74,000, and options 4,936,000 bushels. No. 1 Northern in New York was sold at \$1.04½@1.05, and No 1 hard at \$1.05. May corn closed at 42½c., with receipts 134,000, exports 175,000, and options 1,880,000 bushels. May oats closed at 33½c., with receipts 125,000, spot sales 326,000, and options 1,025,000 bushels. Wheat flour was quiet but higher. Receipts included 15,000 packages, and sales 20,000 barrels. Quotations included the following: Low extras \$2.40@2.90; city mills \$4.30@4.50; city mills patents \$5.00@5.75; winter wheat low grades \$2.40@2.90; fair to fancy \$3.10@4.75; patents \$4.50@5.25; Minnesota clear \$3.60@4.50; straights \$3.80@4.75; patents \$4.65@5.65; rye mixtures \$3.65@4.15; superfine \$1.25@2.85. The minor lines were unchanged and featureless. The Minneapolis output for last week was 144,300 barrels.

BUFFALO MARKETS.

WHEAT—The market opened quiet this morning, but after noon prices went up a couple of cents, and little was done. There was a sale of 5,000 bushels c.i.f. No. 1 Northern in the morning at 95c., but at the close spot was quoted at 99c.; No. 1 hard was quoted at \$1.01 at the close, No. 2 red in store was held at 98c. and some amber sold at 97c. No. 2 white is held at 97c. on track CORN—The market opened steady, but went up ½c. before the close. Sales of No. 2 yellow were made at 38½@39c., and it was held at 39½c. at the close; No. 2 corn sold at 37½@38c. and closed ½c. higher; No. 4 yellow sold 37c. OATS—The market is firm and higher; No. 2 white sold at 32½@33c., No. 3 do at 31½@32½c., and No. 2 mixed at 31@31½c. RYE—Prices in

this market are nominal at 56c. for No. 2 in store. BARLEY—There is some inquiry but few sales. Quotations are 69@70c. for No. 1 Canada and 67@69c. for No. 2. No. 3 extra is held at 66@68c. OATMEAL—Akron, \$5.45; Western, \$5.25 per bbl.; rolled oats, in cases, 72 lbs., \$3.25. CORNMEAL—Coarse, 75@85c.; fine, 80@90c.; granulated, \$1.50 per cwt. MILLFEED—City-ground coarse winter, \$14.50@15.00 per ton; fine do. \$14.50@15.50; finished winter middlings, \$15.00@16.00; coarse spring do. \$14.00@14.50.

FLOUR MARKET.

Spring Wheat.	Winter Wheat.
Patents.....	\$6.25@6.75
Straight.....	5.00@5.50
Bakers.....	4.50@5.00
Red Dog.	2.50@3.00
Rye flour	3.75@—
	Patents ... \$5.25@5.75
	Straight... 5.00@5.50
	Clear ... 4.75@5.25
	Low grades 3.00@4.00
	Graham 4.50@—
	Retail prices 50c per bbl above these quotations.
	Buckwheat flour \$1.40@1.75 per 100 100 lbs.

Sometimes

Corrugated Iron is represented to be "just as good as" our Patent Edge Corrugation.

While this is complimentary to our material, unfortunately it does not work out well in practice.

The only Corrugated Iron that can be recommended for roofing is manufactured by

The Cincinnati Corrugating Co.

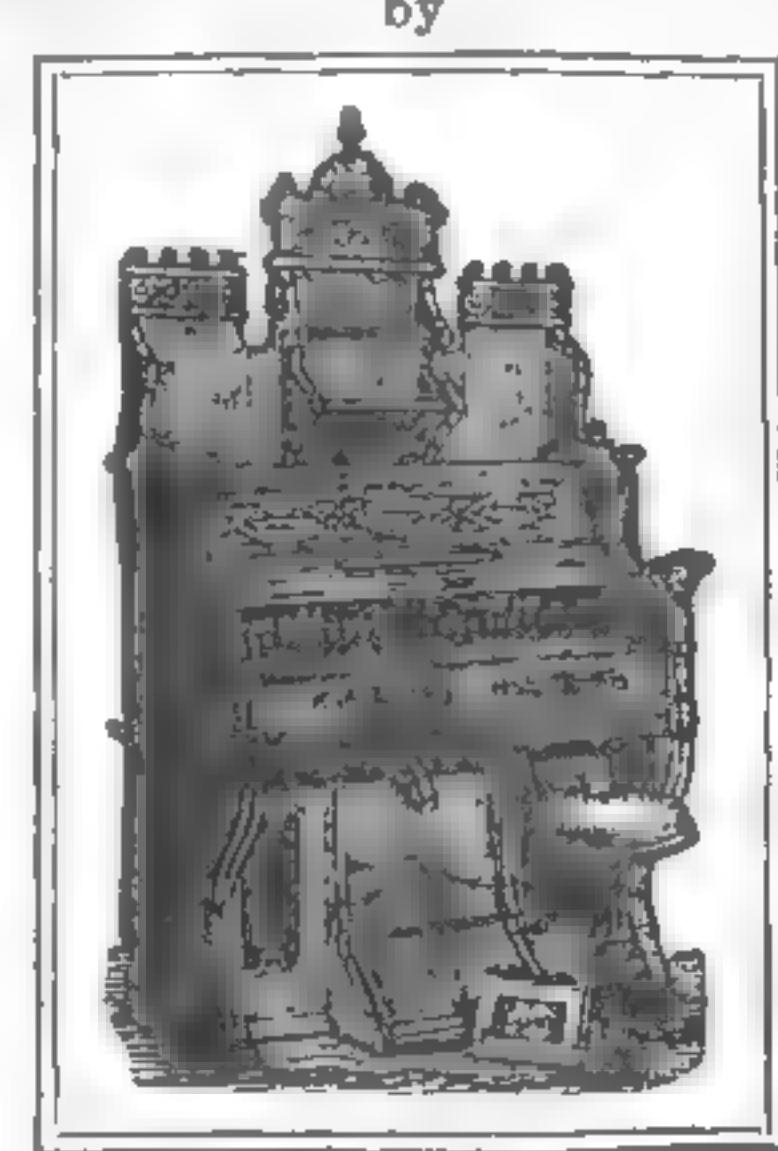
PIQUA, OHIO.

WHEN WRITING TO ADVERTISERS PLEASE MENTION "THE MILLING WORLD."

The BEST PIANOS and ORGANS IN THE WORLD

Are manufactured and sold for the least money by

THE BEST ARE THE CHEAPEST.



BEETHOVENO
PIANO ORGAN CO.
WASHINGTON WARREN CO., ILL.
MENTION THIS PAPER.

Write us for Illustrated Catalogue, Free.



RELIANCE OIL & GREASE CO., CLEVELAND, O..

—MANUFACTURERS OF—

Finest Lubricants for Milling Plants. A Challenge to the World.

WRITE US.

"VALVE OLEINE"—675 Degrees Fire Test, Cylinder Oil.

"CHIEF"—Roller Mill Lubricant.

"NIAGARA"—Belt Grease.

"RUSSIAN"—Engine and Machine Oil.

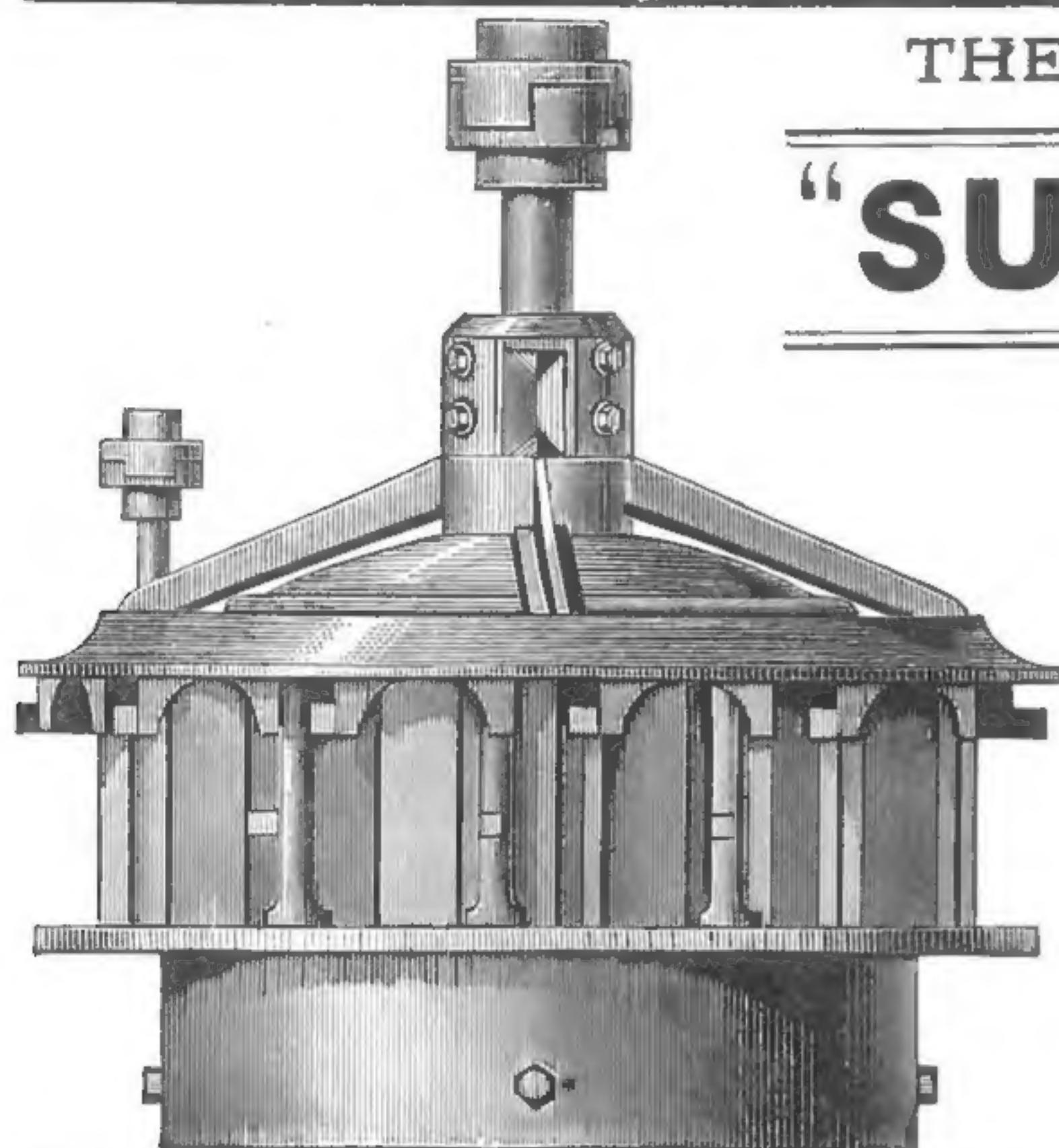
"ANCHOR"—Roller Mill Grease.

"CHELSEA"—Scale Solvent, Best on Market.

SPECIAL
HIGH GRADE
PRODUCTS

Agents Wanted

FREE—SAMPLES, CATALOGUE, AND ALL INFORMATION.



THE IMPROVED

"SUCCESS"

PERCENTAGE:

Full Gate, - -	86 29
½ Gate, - - -	86 07
¾ Gate, . - -	81.90

(:0:)

This Wheel Is Both Durable and Cheap. Send for Pamphlet to

S. MORGAN SMITH
YORK, - PA.

C. O. Bartlett's Net Prices. DUFOUR BOLTING CLOTH.

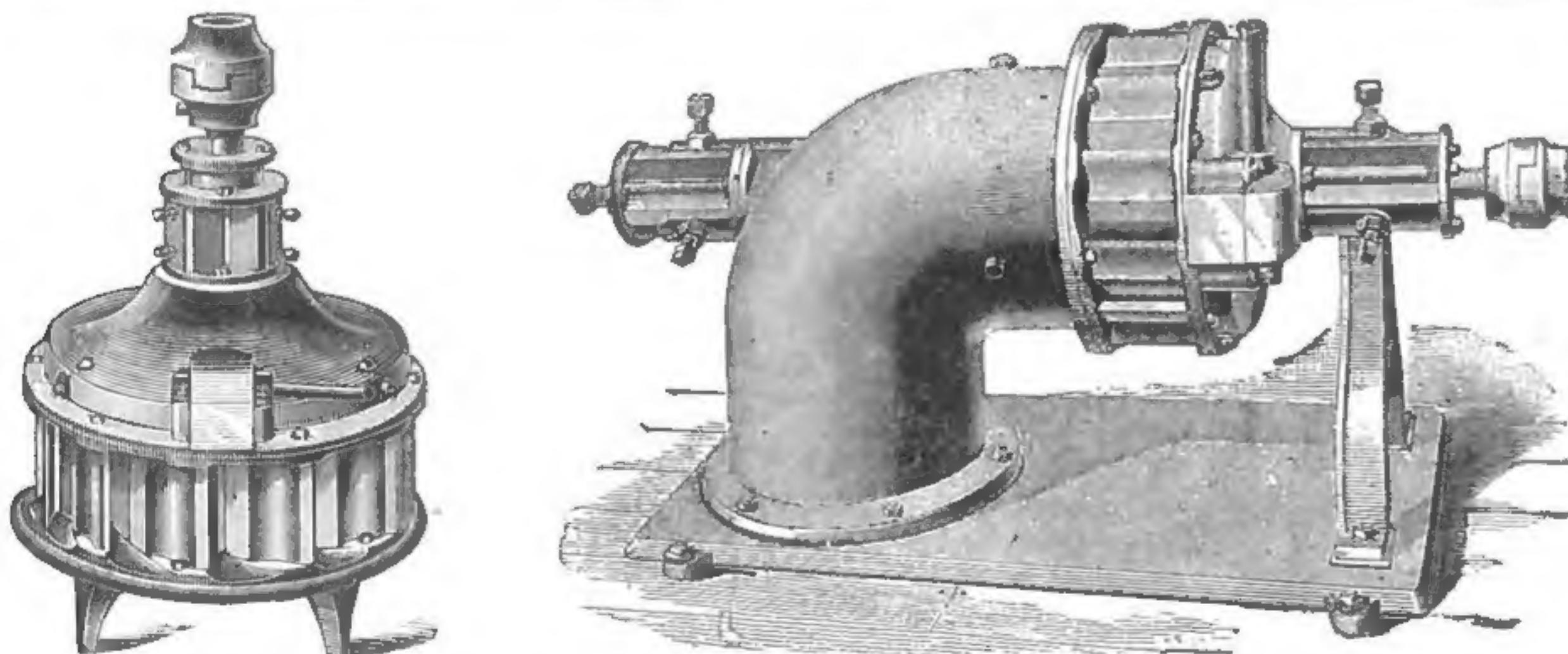
0000.....	.86	2.....	\$1.10	7.....	\$1.46	12.....	\$1.80	Link Belting.
000.....	.91	3	1.20	8.....	1.50	13.....	2.16	Sprocket Wheels.
00.....	.95	4.....	1.27	9.....	1.60	14.....	2.34	Shafting, Pulleys, Etc
0.....	.98	5.....	1.38	10.....	1.65	15.....	2.58	General Mill Machinery.
1.....	\$1.04	6.....	1.46	11.....	1.74	16.....	2.91	Write for Prices.

C. O. BARTLETT, CLEVELAND, OHIO.

WHEN WRITING TO ADVERTISERS

PLEASE MENTION

THE MILLING WORLD.



**BURNHAMS NEW IMPROVED
STANDARD TURBINE WHEEL,
ON VERTICAL OR HORIZONTAL SHAFT.**

IT WILL PAY INTERESTED PERSONS TO INVESTIGATE THE MERITS OF THIS WHEEL BEFORE PLACING THEIR ORDER. SEND FOR NEW CATALOGUE.

BURNHAM BROS., YORK, PA.

"ELECTRIC" BELT DRESSING.

A WONDERFUL LEATHER PRESERVATIVE, suitable for Leather, Rubber, Cotton or Rawhide Belting. Belts dressed with this dressing will last twice as long and transmit 100 per cent. more power. Save your Belting and prevent heating of journals by running them under a reduced tension. Sold on approval to responsible parties. SEND FOR CIRCULARS.

BUFFALO SPECIALTY MFG. CO.,
67& 69 Washington Street, BUFFALO, N. Y.

* THE INK *
WITH WHICH THIS PAPER IS PRINTED
IS MADE BY THE
QUEEN CITY PRINTING INK CO.
CINCINNATI, O.

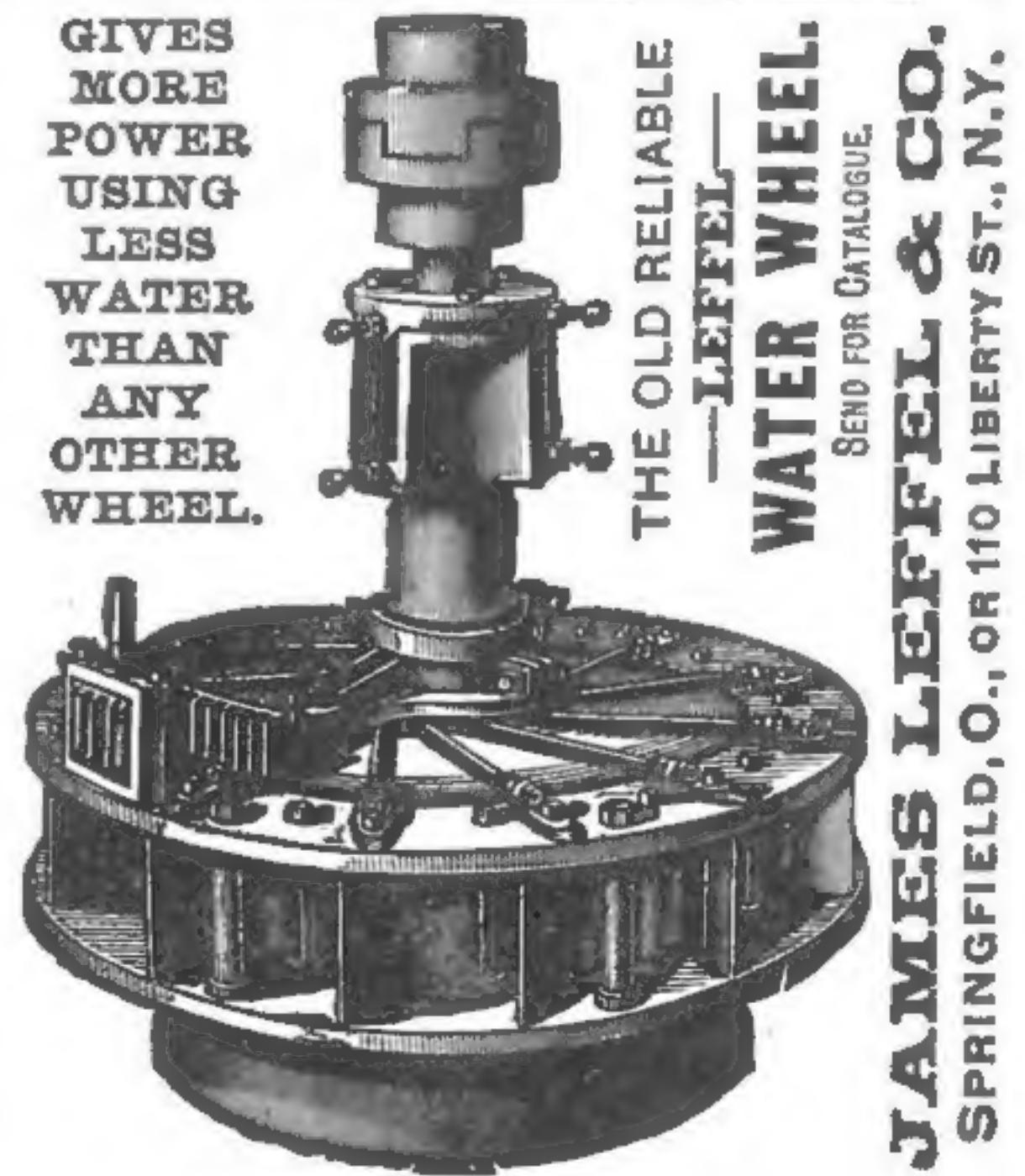


THIS WHEEL GIVES HIGH RESULTS, AND IS ACKNOWLEDGED THE BEST, MOST PRACTICAL AND EFFICIENT TURBINE MADE. FOR SIMPLICITY, DURABILITY, AND TIGHTNESS OF GATE IT HAS NO EQUAL.

State requirements and send for Catalogue to

T. C. ALCOTT & SON,
MOUNT HOLLY, N. J.

GIVES
MORE
POWER
USING
LESS
WATER
THAN
ANY
OTHER
WHEEL.





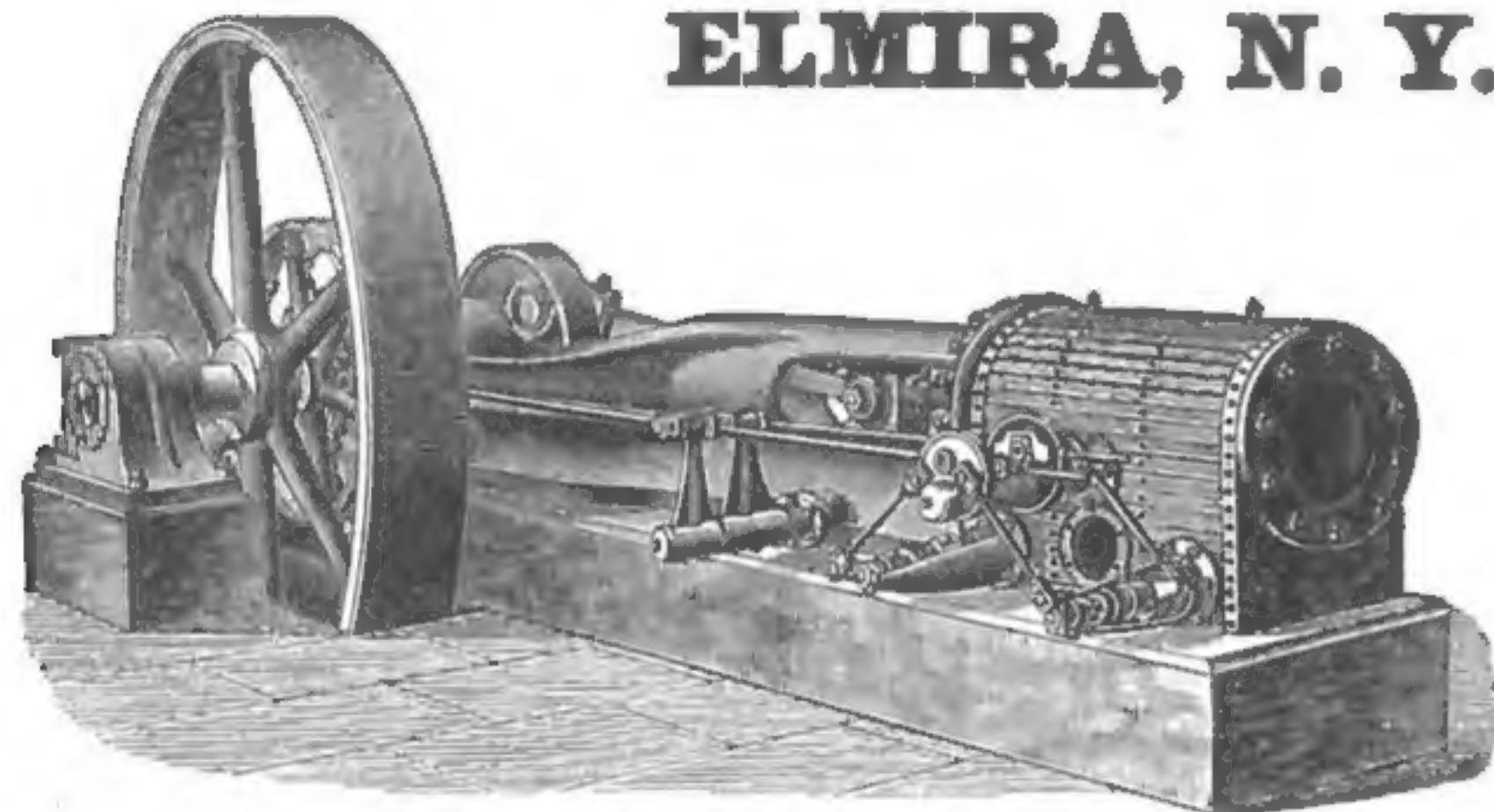
PAYNE HIGH SPEED CORLISS ENGINE

SHAFT GOVERNOR COMBINED WITH CORLISS WRIST-PLATE.

ECONOMY OF FUEL.

REGULATION EQUAL TO ANYTHING IN USE.

B. W. Payne & Sons,
ELMIRA, N. Y.



10 S. Canal Street.

CHICAGO, ILL.

45 Dey Street

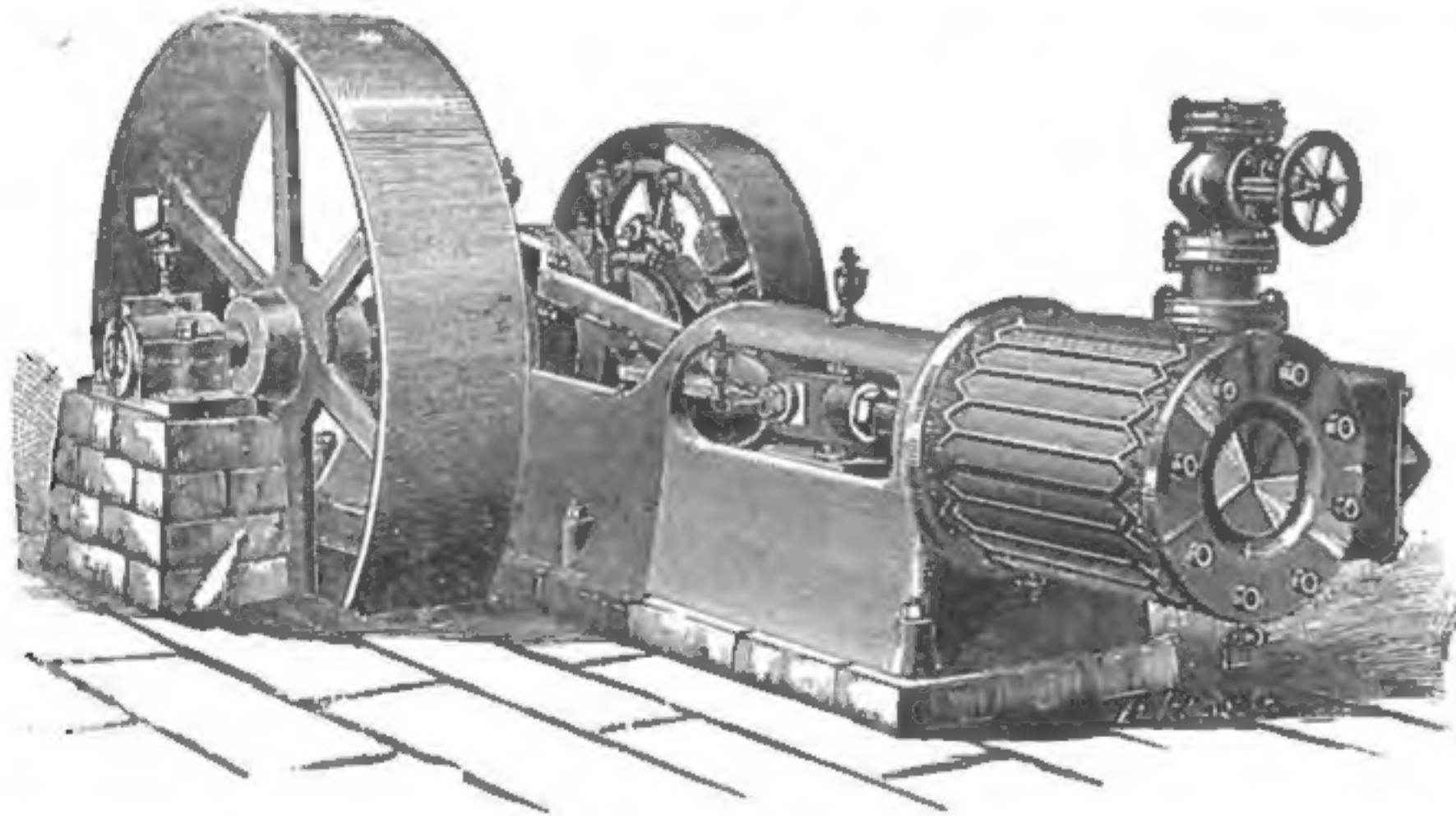
NEW YORK.

Hill, Clark & Co.

BOSTON, MASS.

AUTOMATIC ENGINES FROM 2 TO 200 HORSE POWER.

Economic Power Plants



Especially Adapted to Electric Lighting and

WOOD-WORKING ESTABLISHMENTS

MANUFACTURED BY

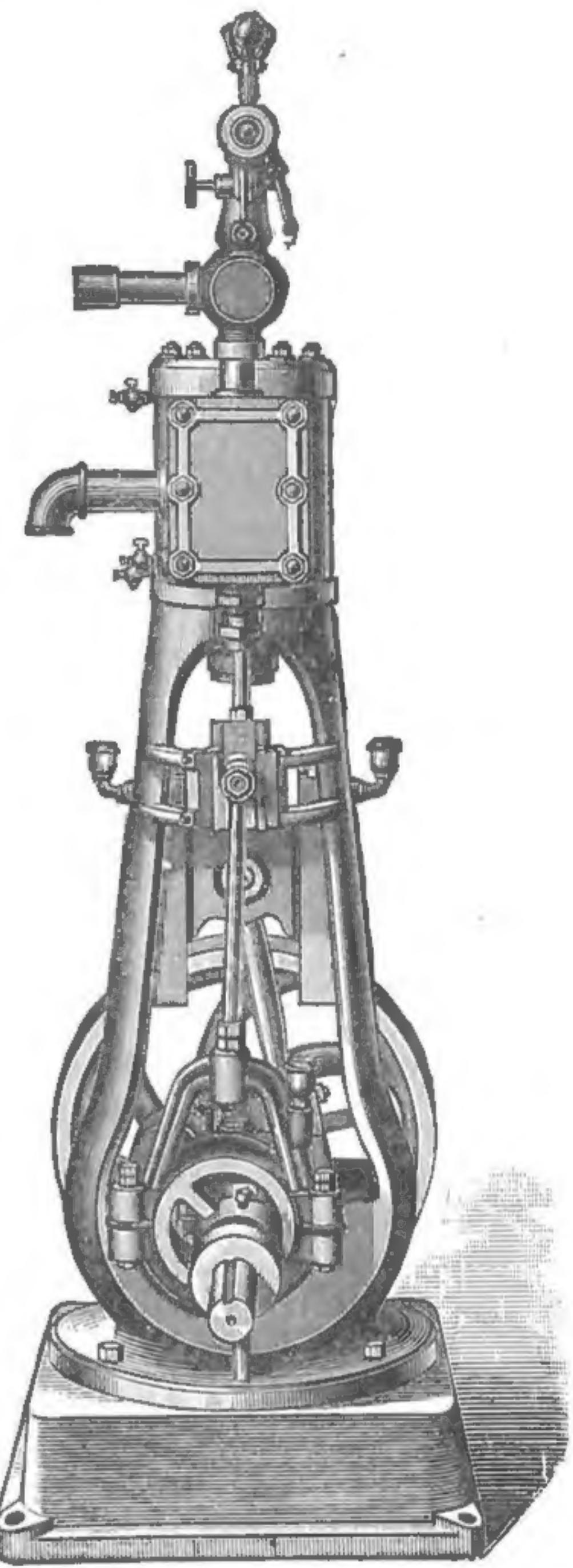
VALLEY IRON WORKS, WILLIAMSPORT, PENN.

Please Send for Our New Catalogue and Mention "The Milling World."



BRANCH HOUSE, 1425 EAST MAIN STREET, RICHMOND, VA.

AUTOMATIC VERTICAL ENGINES



Especially adapted for Small Electric Light Plants. Perfect Regulation. Reversible Link Motion for Marine Use. Five to Fifteen Horse Power. Also manufacturers of

Lathes and Special Tools

Metal Patterns, Models and Machinery Built to Order
Send for Prices and Specifications.

Lloyd & Sterrett

COR. 16TH AND STATE STS.,
ERIE, -- - PENN.

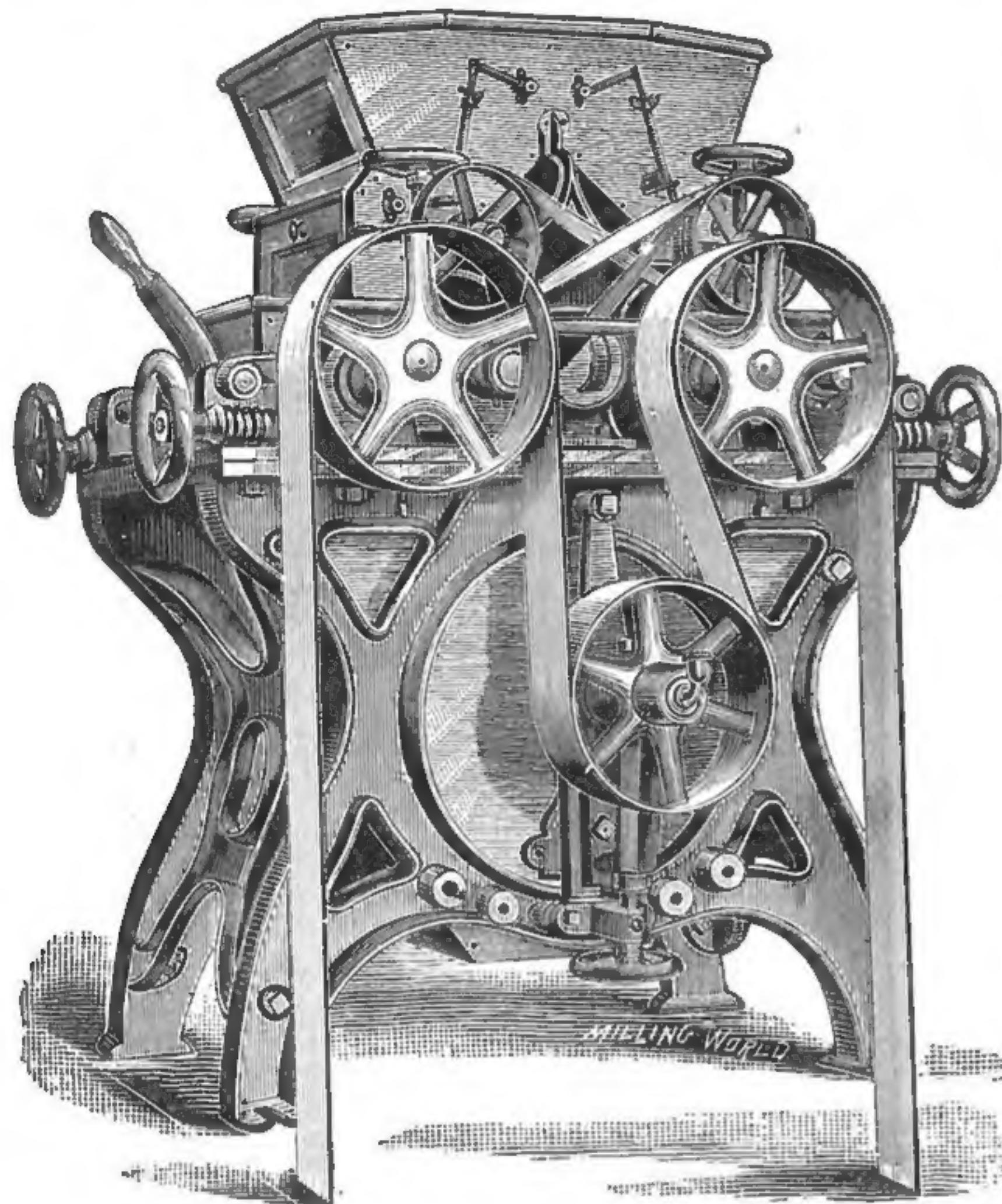
MOORE'S PATENT



For all kinds of coverage. Thousands in use in all parts of the U. S. Send for Circular.

JOLIET STOVE WORKS, JOLIET ILL.

JOHN HUTCHISON MFG. CO., Mill Builders and Mill Furnishers.



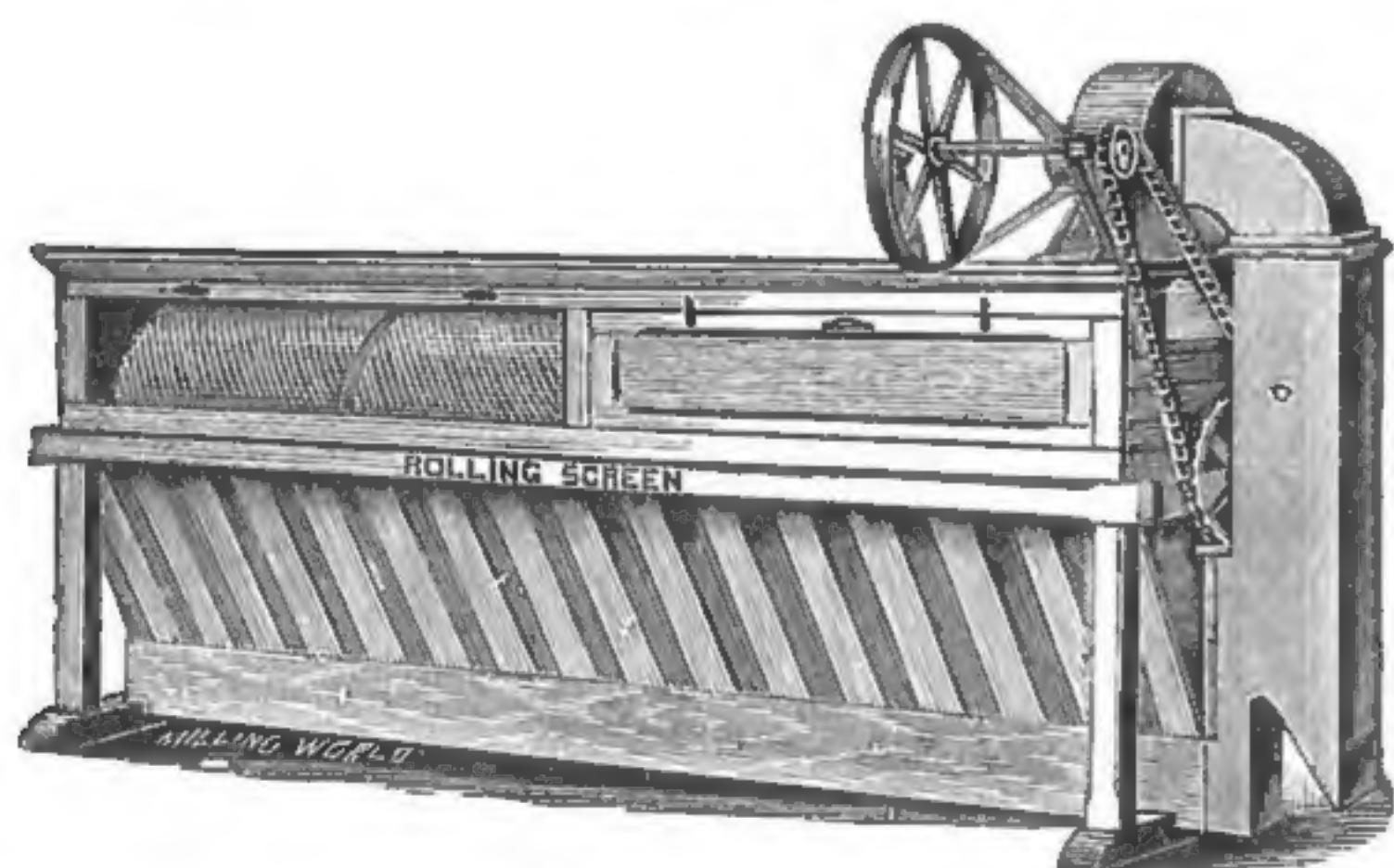
"The Rickerson." The original six inch 4 Roller Mill. We now own the patents on this mill and after greatly improving the mill manufacture them in four sizes:

6x12 inch.

6x18 inch.

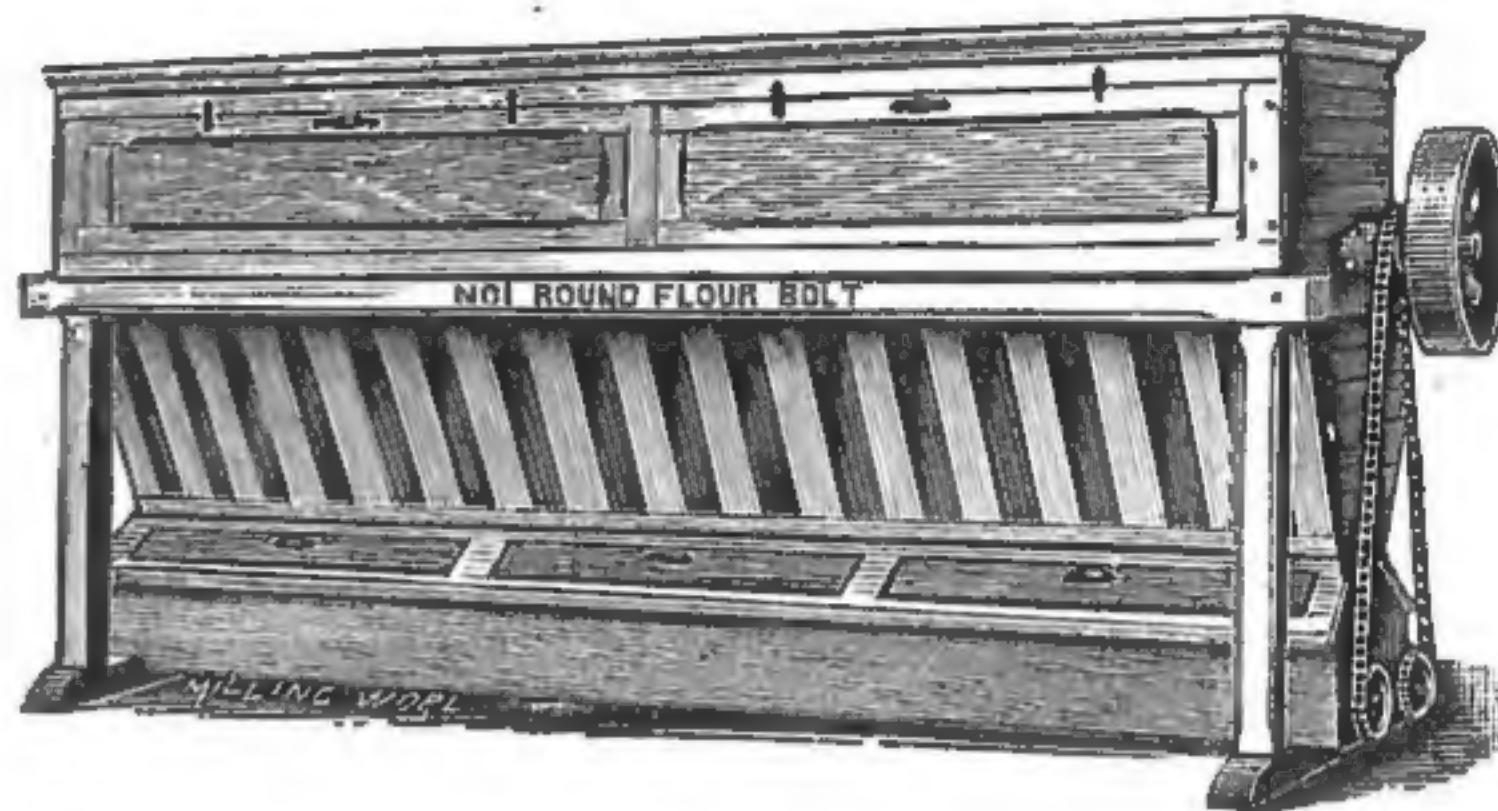
6x15 "

6x20 "

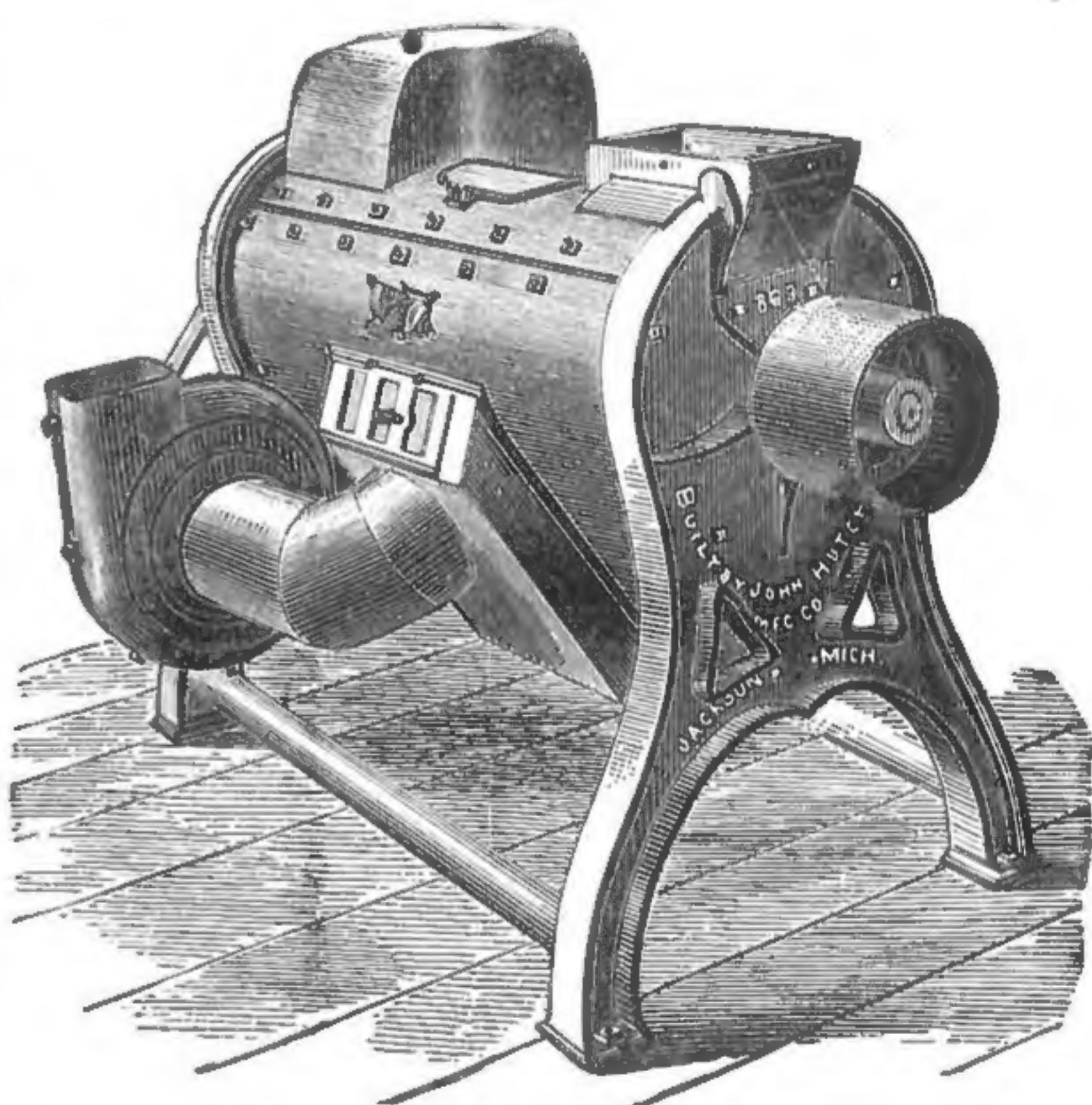


The above cut represents our New Rolling Screen, which is absolutely dustless and has as much scouring qualities as any two scouring machines now being made.

Send for Estimates for Our Full Roller Mills of any Capacity.



The above cut shows our New Round Slow Running Flour Bolt. We also build a Cylinder or Round Scalping Reel and we have lately built a number of new mills of medium capacity, using our Roller Mills, our Round Flour Bolts and Scalping Reels, getting better results than is usually obtained.



Hutchison's New Dustless Iron Corn Sheller, especially adapted for Mill and Elevator use.

—ADDRESS ALL CORRESPONDENCE TO:—

John Hutchison Mfg. Co.
JACKSON. — MICHIGAN.



CORRUGATIONS

What we know of corrugations can be found out by writing to US, or H. W. Caldwell, Chicago, Ill.

Stamping and Pressing of Sheet Metals for all Classes of Work. Also Tinning, Galvanizing and Japanning.

THE AVERY STAMPING CO.,
Cleveland, Ohio, U. S. A.

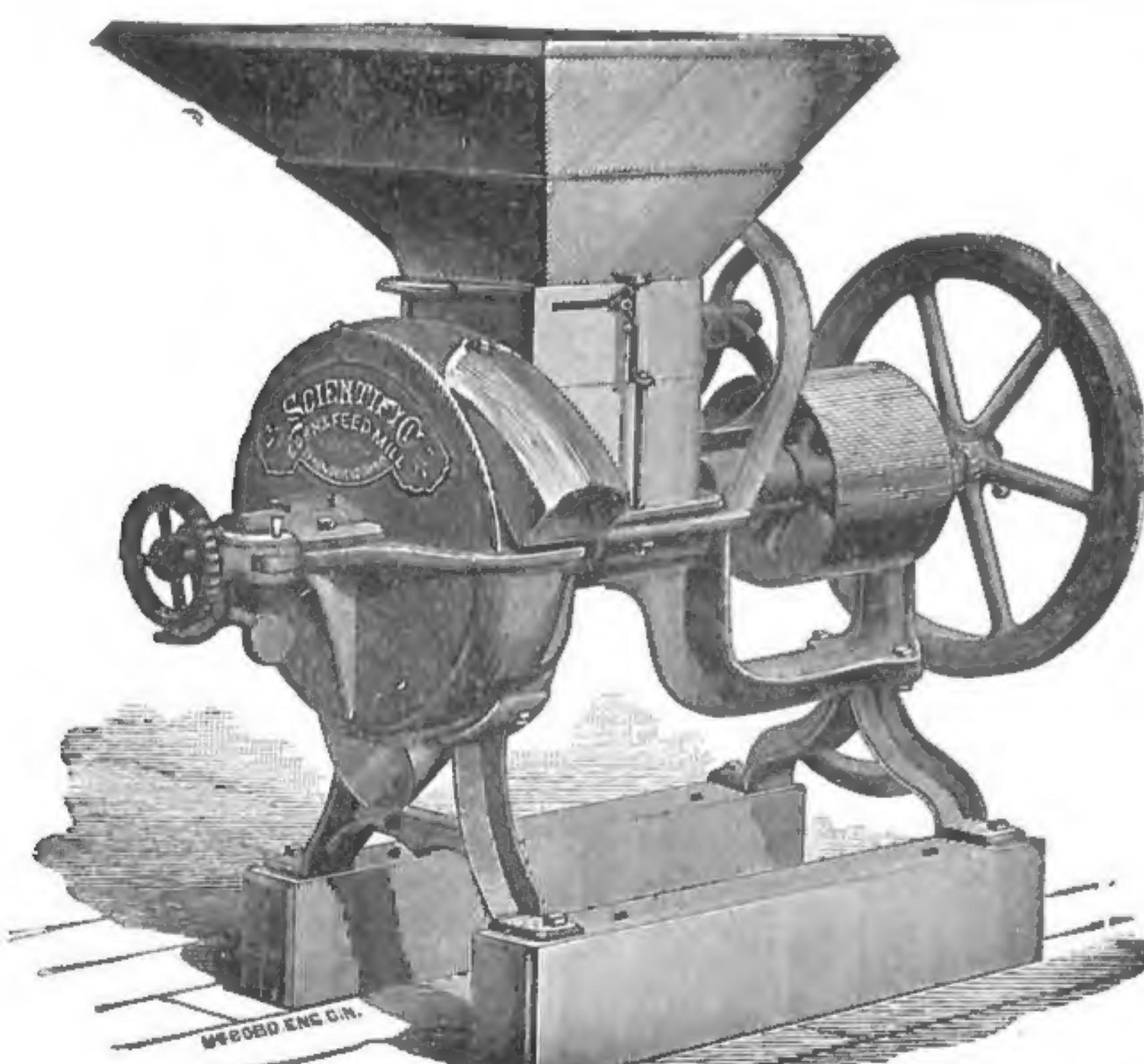
New York Office, 51 Cliff Street, HALL & NEAR, Agents.



SELF-TRAMMING PORTABLE MILL BEST GRINDING MILL MADE. BOLTING CLOTH AND BURR AND ESOPUS MILLSTONES

WRITE FOR DISCOUNTS.

SAMUEL CAREY,
17 Broadway, NEW YORK.



—THE SCIENTIFIC— GRINDING MILL.

POSITIVELY THE BEST MILL ON EARTH.
GRINDS PERFECTLY, FAR CORN, SHELLED CORN,
AND ALL GRAINS.

GRINDING PLATES A SPECIAL METAL

Hard as Steel, Guaranteed to Grind from Five to Eight Thousand Bushels before wearing out.

SEND FOR ILLUSTRATED CATALOGUE, PRICES, ETC.

THE FOOS MFG. CO.
SPRINGFIELD OHIO.

THE SALEM BUCKET STILL ON TOP!



—AND IS LIKELY TO— HOLD ITS PLACE

As Leader of Buckets because it proves to be

—THE BEST—

And the cheapest in the long run after all.

Send for New Catalogue and Revised Price List.

W. J. CLARK & CO., SALEM, OHIO.
THORNBURGH & GLESSNER, CHICAGO, ILL.